

STATE OF MISSOURI  
**DEPARTMENT OF NATURAL RESOURCES**  
MISSOURI CLEAN WATER COMMISSION



**MISSOURI STATE OPERATING PERMIT**

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92<sup>nd</sup> Congress) as amended,

Permit No. MO-0128241

Owner: Schreiber Foods, Inc.  
Address: 49 North Eisenhower, Monett, MO 65708

Continuing Authority: Same as Above  
Address: Same as Above

Facility Name: Schreiber Foods, Inc.  
Facility Address: 49 North Eisenhower, Monett, MO 65708

Legal Description: See Pages 2-8  
UTM (X / Y): See Pages 2-8

Receiving Stream: See Pages 2-8  
First Classified Stream and ID: See Pages 2-8  
USGS Basin & Sub-watershed No.: See Pages 2-8

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

**FACILITY DESCRIPTION**

All Permitted Features – Industrial Sludge – SIC #2022  
Pretreatment and No-Discharge Sludge Facility  
Wastewater flows to Monett WWTF (MO-0021440)  
Two aerobic sludge digestion basins / sludge storage tank / sludge is land applied.

Design organic population equivalent is 27,215.  
Design flow is 27,550 gallons per day (1-in-10 year design flow including net rainfall minus evaporation).  
Design average daily flow is 27,400 gallons per day(dry weather flows).  
Design sludge production is 1,660 dry tons/year.

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

April 1, 2014  
Effective Date

Sara Parker Pauley, Director, Department of Natural Resources

December 31, 2017  
Expiration Date

John Madros, Director, Water Protection Program

**FACILITY DESCRIPTION (continued)**

Permitted Feature #045 – Irrigation System Design

**Receiving Stream Watershed:** a gaining stream setting for basins and storage tanks, losing for some land application sites (designated as losing in the Permitted Feature description below).

**Facility Type:** No-discharge Storage & Sludge application

**Storm Water Flows: (Lawrence County)**

Average Annual Rainfall: 41 inches  
1-in-10 Year Annual Rainfall: 54 inches  
25-year-24-hour storm: 6.8 inches

<u>1-in-10 Year Flows:</u>	<u>Annual</u>
Runoff from concrete and roof areas:	3.4 ft
Runoff from earth areas: (lagoon berm, lots, etc.)	2.3 ft
Rainfall minus evaporation (R-E) on lagoon water surface:	1.8 ft

**East Digester**

<u>Dimensions:</u>	<u>(Length x Width)</u>	<u>Surface Area</u>	<u>Depth from Bottom</u>
Center Line Top Berm:	79' x 79'	6241 sq.ft.	by <u>11</u> feet depth
Freeboard: (top berm to spillway):			<u>2</u> feet depth
Maximum operating level:			<u>9</u> feet depth
Minimum operating level:			<u>2</u> feet depth
Storage volume (minimum to maximum water levels)	<u>212,674</u> gallons		
Total Volume	<u>231,000</u> gallons		
Berm top width:	<u>4</u> feet		
Storage Capacity:	8.25 days		

**West Digester**

<u>Dimensions:</u>	<u>(Length x Width)</u>	<u>Surface Area</u>	<u>Depth from Bottom</u>
Center Line Top Berm:	79' x 79'	6241 sq.ft.	by <u>11</u> feet depth
Freeboard: (top berm to spillway):			<u>2</u> feet depth
Maximum operating level:			<u>9</u> feet depth
Minimum operating level:			<u>2</u> feet depth
Storage volume (minimum to maximum water levels)	<u>212,674</u> gallons		
Total Volume	<u>231,000</u> gallons		
Berm top width:	<u>4</u> feet		
Storage Capacity:	8.25 days		

**Holding Tank**

<u>Dimensions:</u>	<u>(Diameter x Height)</u>	
	26' x 20'	
Freeboard: (top berm to spillway):		<u>3</u> feet depth
Storage volume (minimum to maximum water levels)	<u>66,000</u> gallons	
Total Volume	66,000 gallons	
Storage Capacity:	2.3 days	

**Land Application:**

Irrigation areas: 2021 acres at design loading  
Application rates per acre: 0.536 dry ton / year, 0.11 dry ton / application  
Equipment type: tank truck  
Vegetation: Grass hay, pasture, and row crops  
Application rate is based on: Plant Available Nitrogen (PAN) method

**FACILITY DESCRIPTION (continued)**

Permitted Feature #001, Site 15, 80 Acres  
Legal Description: W ½, SE ¼ Sec. 12, T25N, R28W, Barry County  
UTM Coordinates: X=415849, Y=4082999  
Receiving Stream: Tributary to Hudson Creek (U) **Losing**  
First Classified Stream and ID: Hudson Creek (C) (03237)  
USGS Basin & Sub-watershed No.: (11070207-0703)

Permitted Feature #002, Site 17, 20 Acres  
Legal Description: SE ¼, NE ¼, Sec. 13, T25N, R28W, Barry County  
UTM Coordinates: X=415741, Y=4081824  
Receiving Stream: Tributary to Hudson Creek (U) **Losing**  
First Classified Stream and ID: Hudson Creek (C) (03237)  
USGS Basin & Sub-watershed No.: (11070207-0703)

Permitted Feature #003, Site 18, 6 Acres  
Legal Description: SE ¼, SE ¼, Sec. 12, T25N, R28W, Barry County  
UTM Coordinates: : X=416129, Y=4082651  
Receiving Stream: Tributary to Hudson Creek (U) **Losing**  
First Classified Stream and ID: Hudson Creek (C) (03237)  
USGS Basin & Sub-watershed No.: (11070207-0703)

Permitted Feature #004, No longer in used as a land application site.

Permitted Feature #005, No longer in used as a land application site.

Permitted Feature #006, Site 46, 40 Acres  
Legal Description: NW ¼, SW ¼, Sec. 7, T25N, R27W, Barry County  
UTM Coordinates: X=416691, Y=4083195  
Receiving Stream: Tributary to Hudson Creek (U)  
First Classified Stream and ID: Hudson Creek (C) (03237)  
USGS Basin & Sub-watershed No.: (11070207-0703)

Permitted Feature #007, Site 49, 60 Acres  
Legal Description: SE ¼, NW ¼, Sec. 7, T25N, R27W, Barry County  
UTM Coordinates: X=417046, Y=4083453  
Receiving Stream: Tributary to Hudson Creek (U)  
First Classified Stream and ID: Hudson Creek (C) (03237)  
USGS Basin & Sub-watershed No.: (11070207-0703)

Permitted Feature #008, Site 52, 24 Acres  
Legal Description: NW ¼, NW ¼, Sec. 8, T25N, R27W, Barry County  
UTM Coordinates: X=418270, Y=4084042  
Receiving Stream: Tributary to Clear Creek (U) **Losing**  
First Classified Stream and ID: Clear Creek (C) (03239) 303 (d)  
USGS Basin & Sub-watershed No.: (11070207-0704)

Permitted Feature #009, No longer in used as a land application site.

Permitted Feature #010, No longer in used as a land application site.

Permitted Feature #011, No longer in used as a land application site.

Permitted Feature #012, No longer in used as a land application site.

Permitted Feature #013, Site 84, 40 Acres

Legal Description: NW ¼, NE ¼, Sec. 13, T25N, R28W, Barry County  
UTM Coordinates: X=415830, Y=4082377  
Receiving Stream: Tributary to Hudson Creek (U) **Losing**  
First Classified Stream and ID: Hudson Creek (C) (03237)  
USGS Basin & Sub-watershed No.: (11070207-0703)

Permitted Feature #014, No longer in used as a land application site.

Permitted Feature #015, Site 89, 55 Acres

Legal Description: NW ¼, NW ¼, Sec. 7, T25N, R27W, Barry County  
UTM Coordinates: X=416656, Y=4083833  
Receiving Stream: Tributary to Hudson Creek (U)  
First Classified Stream and ID: Hudson Creek (C) (03237)  
USGS Basin & Sub-watershed No.: (11070207-0703)

Permitted Feature #016, Site 96, 14 Acres

Legal Description: NW ¼, SW ¼, Sec. 18, T25N, R27W, Barry County  
UTM Coordinates: X=416724, Y=4081638  
Receiving Stream: Tributary to Hudson Creek (U) **Losing**  
First Classified Stream and ID: Hudson Creek (C) (03237)  
USGS Basin & Sub-watershed No.: (11070207-0703)

Permitted Feature #017, Site 97, 12 Acres

Legal Description: NW ¼, SW ¼, Sec. 18, T25N, R27W, Barry County  
UTM Coordinates: X=416488, Y=4081606  
Receiving Stream: Tributary to Hudson Creek (U) **Losing**  
First Classified Stream and ID: Hudson Creek (C) (03237)  
USGS Basin & Sub-watershed No.: (11070207-0703)

Permitted Feature #018, Site 98, 7 Acres

Legal Description: SE ¼, SE ¼, Sec. 12, T25N, R28W, Barry County  
UTM Coordinates: X=416380, Y=4082683  
Receiving Stream: Tributary to Hudson Creek (U) **Losing**  
First Classified Stream and ID: Hudson Creek (C) (03237)  
USGS Basin & Sub-watershed No.: (11070207-0703)

Permitted Feature #019, Site 104, 7 Acres

Legal Description: SE ¼, NE ¼, Sec. 13, T25N, R28W, Barry County  
UTM Coordinates: X=416275, Y=4081818  
Receiving Stream: Tributary to Hudson Creek (U) **Losing**  
First Classified Stream and ID: Hudson Creek (C) (03237)  
USGS Basin & Sub-watershed No.: (11070207-0703)

Permitted Feature #020, Site 107, 24 Acres

Legal Description: SW ¼, NE ¼, Sec. 13, T25N, R28W, Barry County  
UTM Coordinates: X=415887, Y=4081970  
Receiving Stream: Tributary to Hudson Creek (U) **Losing**  
First Classified Stream and ID: Hudson Creek (C) (03237)  
USGS Basin & Sub-watershed No.: (11070207-0703)

Permitted Feature #021, Site 112, 20 Acres

Legal Description: NE ¼, SE ¼, Sec. 12, T25N, R28W, Barry County  
UTM Coordinates: X=416228, Y=4083011  
Receiving Stream: Tributary to Hudson Creek (U) **Losing**  
First Classified Stream and ID: Hudson Creek (C) (03237)  
USGS Basin & Sub-watershed No.: (11070207-0703)

Permitted Feature #022, No longer in used as a land application site.

Permitted Feature #023, Site 117, 11 Acres  
Legal Description: SE ¼, SE ¼, Sec. 13, T25N, R28W, Barry County  
UTM Coordinates: X=416127, Y=4081144  
Receiving Stream: Tributary to Hudson Creek (U) **Losing**  
First Classified Stream and ID: Hudson Creek (C) (03237)  
USGS Basin & Sub-watershed No.: (11070207-0703)

Permitted Feature #024, Site 118, 14 Acres  
Legal Description: NW ¼, SE ¼, Sec. 13, T25N, R28W, Barry County  
UTM Coordinates: X=415896, Y=4081726  
Receiving Stream: Tributary to Hudson Creek (U) **Losing**  
First Classified Stream and ID: Hudson Creek (C) (03237)  
USGS Basin & Sub-watershed No.: (11070207-0703)

Permitted Feature #025, Site 119, 15 Acres  
Legal Description: SE ¼, SE ¼, Sec. 13, T25N, R28W, Barry County  
UTM Coordinates: X=416154, Y=4082078  
Receiving Stream: Tributary to Hudson Creek (U) **Losing**  
First Classified Stream and ID: Hudson Creek (C) (03237)  
USGS Basin & Sub-watershed No.: (11070207-0703)

Permitted Feature #026, Site 120, 32 Acres  
Legal Description: SE ¼, NW ¼, Sec. 18, T25N, R27W, Barry County  
UTM Coordinates: X=416904, Y=4081864  
Receiving Stream: Tributary to Hudson Creek (U) **Losing**  
First Classified Stream and ID: Hudson Creek (C) (03237)  
USGS Basin & Sub-watershed No.: (11070207-0703)

Permitted Feature #027, Site 121, 30 Acres  
Legal Description: SW ¼, SW ¼, Sec. 7, T25N, R27W, Barry County  
UTM Coordinates: X=416799, Y=4082740  
Receiving Stream: Tributary to Hudson Creek (U)  
First Classified Stream and ID: Hudson Creek (C) (03237)  
USGS Basin & Sub-watershed No.: (11070207-0703)

Permitted Feature #028, Site 123, 32 Acres  
Legal Description: NE ¼, SW ¼, Sec. 18, T25N, R27W, Barry County  
UTM (Coordinates: X=417012, Y= 4081675  
Receiving Stream: Tributary to Hudson Creek (U) **Losing**  
First Classified Stream and ID: Hudson Creek (C) (03237)  
USGS Basin & Sub-watershed No.: (11070207-0703)

Permitted Feature #029, No longer in used as a land application site.

Permitted Feature #030, Site 126, 40 Acres  
Legal Description: NE ¼, NE ¼, NE ¼, Sec. 13, T25N, R28W, Barry County  
UTM Coordinates: X=416127, Y= 4082383  
Receiving Stream: Tributary to Hudson Creek (U) **Losing**  
First Classified Stream and ID: Hudson Creek (C) (03237)  
USGS Basin & Sub-watershed No.: (11070207-0703)

Permitted Feature #031, Site 129, 20 Acres  
Legal Description: NW ¼, NE ¼, Sec. 18, T25N, R27W, Barry County  
UTM Coordinates: X=417487, Y=4081450  
Receiving Stream: Tributary to Hudson Creek (U) **Losing**  
First Classified Stream and ID: Hudson Creek (C) (03237)  
USGS Basin & Sub-watershed No.: (11070207-0703)

Permitted Feature #032, Site 135, 28 Acres

Legal Description: NE ¼, SE ¼, Sec. 13, T25N, R28W, Barry County  
UTM Coordinates: X=415456, Y=4081551  
Receiving Stream: Tributary to Hudson Creek (U) **Losing**  
First Classified Stream and ID: Hudson Creek (C) (03237)  
USGS Basin & Sub-watershed No.: (11070207-0703)

Permitted Feature #033, Site 138, 14 Acres

Legal Description: SE ¼, SE ¼, Sec. 12, T25N, R28W, Barry County  
UTM Coordinates: X=416219, Y=4082857  
Receiving Stream: Tributary to Hudson Creek (U) **Losing**  
First Classified Stream and ID: Hudson Creek (C) (03237)  
USGS Basin & Sub-watershed No.: (11070207-0703)

Permitted Feature #034, Site 151, 10 Acres

Legal Description: SW ¼, NW ¼, Sec. 18, T25N, R27W, Barry County  
UTM Coordinates: X=416572, Y=4082080  
Receiving Stream: Tributary to Hudson Creek (U) **Losing**  
First Classified Stream and ID: Hudson Creek (C) (03237)  
USGS Basin & Sub-watershed No.: (11070207-0703)

Permitted Feature #035, Site 159, 9 Acres

Legal Description: NE ¼, NW ¼, Sec. 11, T25N, R28W, Barry County  
UTM Coordinates: X=414021, Y=4084143  
Receiving Stream: Tributary to Hudson Creek (U) **Losing**  
First Classified Stream and ID: Hudson Creek (C) (03237)  
USGS Basin & Sub-watershed No.: (11070207-0703)

Permitted Feature #36, Site 163, 10 Acres

Legal Description: SW ¼, NW ¼, Sec. 18, T25N, R27W, Barry County  
UTM Coordinates: X=416565, Y=4081861  
Receiving Stream: Tributary to Hudson Creek (U) **Losing**  
First Classified Stream and ID: Hudson Creek (C) (03237)  
USGS Basin & Sub-watershed No.: (11070207-0703)

Permitted Feature #037, Site 178, 20 Acres

Legal Description: SW ¼, NW ¼, Sec. 5, T25N, R27W, Barry County  
UTM Coordinates: X=418428, Y=4084815  
Receiving Stream: Tributary to Clear Creek (U) **Losing**  
First Classified Stream and ID: Clear Creek (C) (03239) 303(d)  
USGS Basin & Sub-watershed No.: (11070207-0704)

Permitted Feature #038, No longer in used as a land application site.

Permitted Feature #039, No longer in used as a land application site.

Permitted Feature #040, Site 182, 12 Acres

Legal Description: SE ¼, SE ¼, Sec. 5, T25N, R27W, Barry County  
UTM Coordinates: X=419462, Y=4084163  
Receiving Stream: Tributary to Clear Creek (U) **Losing**  
First Classified Stream and ID: Clear Creek (C) (03239) 303(d)  
USGS Basin & Sub-watershed No.: (11070207-0704)

Permitted Feature #041, Site 188, 75 Acres

Legal Description: N ½, NW ¼, Sec. 18, T25N, R27W, Barry County  
UTM Coordinates: X=416659, Y=4082357  
Receiving Stream: Tributary to Hudson Creek (U) **Losing**  
First Classified Stream and ID: Hudson Creek (C) (03237)  
USGS Basin & Sub-watershed No.: (11070207-0703)

Permitted Feature #042, Site 191, 160 Acres

Legal Description: W ½, E ½, Sec. 11, T25N, R28W, Barry Co.  
UTM Coordinates: X=414205, Y=4083291  
Receiving Stream: Tributary to Hudson Creek (U) **Losing**  
First Classified Stream and ID: Hudson Creek (C) (03237)  
USGS Basin & Sub-watershed No.: (11070207-0703)

Permitted Feature #043, No longer in used as a land application site.

Permitted Feature #044, Site 196, 20 Acres

Legal Description: SE ¼, SW ¼, Sec. 5, T25N, R27W, Barry County  
UTM Coordinates: X=418852, Y=4084317  
Receiving Stream: Tributary to Clear Creek (U) **Losing**  
First Classified Stream and ID: Clear Creek (C) (03239) 303(d)  
USGS Basin & Sub-watershed No.: (11070207-0704)

Permitted Feature #045 **Main Permitted Feature**

Emergency Discharge only from Digesters and Holding Tank  
Legal Description: SW ¼, SE ¼, Sec. 31, T26N, R27W, Barry County  
UTM Coordinates: X=416758, Y=4086056  
Receiving Stream: Tributary to Clear Creek (U) **Losing**  
First Classified Stream and ID: Clear Creek (C) (03239) 303(d)  
USGS Basin & Sub-watershed No.: (11070207-0704)

Permitted Feature #046, Site 197, 90 Acres

Legal Description: S ½, SW ¼, Sec. 11, T25N, R28W, Barry County  
UTM Coordinates: X=413548, Y=4082899  
Receiving Stream: Tributary to Hudson Creek (U) **Losing**  
First Classified Stream and ID: Hudson Creek (C) (03237)  
USGS Basin & Sub-watershed No.: (11070207-0703)

Permitted Feature #047, Site 198, 40 Acres

Legal Description: NW ¼, SW ¼, Sec. 7, T25N, R27W, Barry County  
UTM Coordinates: X=416679, Y=4083570  
Receiving Stream: Tributary to Hudson Creek (U) **Losing**  
First Classified Stream and ID: Hudson Creek (C) (03237)  
USGS Basin & Sub-watershed No.: (11070207-0703)

Permitted Feature #048, Site 199, 40 Acres

Legal Description: SE ¼, NW ¼ Sec. 16, T26N, R28W, Lawrence County  
UTM Coordinates: X=410877, Y=4091770  
Receiving Stream: Tributary to Clear Creek (U)  
First Classified Stream and ID: Clear Creek (P) (03238) 303(d)  
USGS Basin & Sub-watershed No.: (11070207-0705)

Permitted Feature #049, Site 200, 118 Acres

Legal Description: N ½, N ½, Sec. 8, T25N, R27W, Barry County  
UTM Coordinates: X=419226, Y=4083885  
Receiving Stream: Tributary to Clear Creek (U) **Losing**  
First Classified Stream and ID: Clear Creek (C) (03239) 303(d)  
USGS Basin & Sub-watershed No.: (11070207-0704)

Permitted Feature #050, Site 201, 30 Acres

Legal Description: SE ¼, SE ¼, Sec. 5, T25N, R27W, Barry County  
UTM Coordinates: X=419632, Y=4084140  
Receiving Stream: Tributary to Clear Creek (U) **Losing**  
First Classified Stream and ID: Clear Creek (C) (03239) 303(d)  
USGS Basin & Sub-watershed No.: (11070207-0704)

Permitted Feature #051, Site 202, 137 Acres

Legal Description: SE ¼, Sec. 29, T25N, R28W, Barry County  
UTM Coordinates: X=409116,, Y=4078376  
Receiving Stream: Tributary to Zerhert Branch (U) **Losing**  
First Classified Stream and ID: Shoal Creek (P) (3230)  
USGS Basin & Sub-watershed No.: (11070207-0706)

Permitted Feature #052, Site 203, 138 Acres

Legal Description: NE ¼, Sec. 32, T25N, R28W, Barry County  
UTM Coordinates: X=409416, Y=4077782  
Receiving Stream: Tributary to Zerhert Branch (U) **Losing**  
First Classified Stream and ID: Shoal Creek (P) (3230)  
USGS Basin & Sub-watershed No.: (11070207-0706)

Permitted Feature #053, Site 204, 168 Acres

Legal Description: S ½, N ½, Sec. 9, T25N, R27W, Barry County  
UTM Coordinates: X=420507, Y=4083482  
Receiving Stream: Tributary to Clear Creek (U) **Losing**  
First Classified Stream and ID: Clear Creek (P) (03239) 303(d)  
USGS Basin & Sub-watershed No.: (11070207-0706)

Permitted Feature #054, Site 205, 200 Acres

Legal Description: N ½, S ½, Sec. 4, T25N, R28W, Barry County  
UTM Coordinates: X=410708, Y=4085095  
Receiving Stream: Tributary to Capps Creek (U) **Losing**  
First Classified Stream and ID: Capps Creeks (P) (003234) 303(d)  
USGS Basin & Sub-watershed No.: (11070207-0703)

Permitted Feature #55, Site 206, 39 Acres

Legal Description: NW ¼, NE ¼, Sec. 11, T25N, R28W, Barry County  
UTM Coordinates: X=414294, Y=4084066  
Receiving Stream: Tributary to Hudson Creek (U) **Losing**  
First Classified Stream and ID: Hudson Creek (C) (03237)  
USGS Basin & Sub-watershed No.: (11070207-0703)

Permitted Feature #56, Site 207, 120 Acres

Legal Description: NW ¼, Sec. 13, T25N, R28W, Barry County  
UTM Coordinates: X=415041, Y=4082101  
Receiving Stream: Tributary to Hudson Creek (U) **Losing**  
First Classified Stream and ID: Hudson Creek (C) (03237)  
USGS Basin & Sub-watershed No.: (11070207-0703)

Permitted Feature #57, Site 207, 40 Acres

Legal Description: NE ¼, NE ¼, Sec. 12, T25N, R28W, Barry County  
UTM Coordinates: X=416316, Y=4083991  
Receiving Stream: Tributary to Hudson Creek (U) **Losing**  
First Classified Stream and ID: Hudson Creek (C) (03237)  
USGS Basin & Sub-watershed No.: (11070207-0703)

**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

The permittee is authorized to discharge from Permitted Feature(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective **April 1, 2014**, and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

PERMITTED FEATURE NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>All Permitted Features except #045</u> – Land Application Operational Monitoring						
Volume of Sludge Applied	gallons	*			daily	total
Application Area	acres	*			daily	total
Application Rate	inches / acre	*			daily	total

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE **JULY 28, 2014**.

Permitted Feature #045 – Sludge Land Applied (Note 1)

pH – Units	SU	**			once/quarter***	grab
Total Kjeldahl Nitrogen as N	mg/kg	*			once/quarter***	grab
Nitrate / Nitrite as N	mg/kg	*			once/quarter***	grab
Ammonia Nitrogen as N	mg/kg	*			once/quarter***	grab
Total Phosphorus as P	mg/kg	*			once/quarter***	grab
Percent Solids	%	*			once/quarter***	grab
Total Boron	mg/kg	1.4			once/quarter***	grab
Precipitation	inches	*			daily	total
Sludge Holding Tank Freeboard (Note 2)	feet	*			once/ week	measured

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE **JULY 28, 2014**. THERE SHALL BE NO DISCHARGE OF FLOATING OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

All Permitted Features except #045 – Soil Monitoring (Note 3)

Ammonia as N	mg/kg	*			once/permit cycle	composite
Chlorides	mg/kg	*			once/permit cycle	composite
Nitrate / Nitrite as N	mg/kg	*			once/permit cycle	composite
pH – Units	SU	*			once/permit cycle	composite
Available Phosphorus as P (Bray P-1 method)	mg/kg	*			once/permit cycle	composite
Total Sodium	mg/kg	*			once/permit cycle	composite
Exchangeable Sodium	%	*			once/permit cycle	composite

MONITORING REPORTS SHALL BE SUBMITTED ONCE PER PERMIT CYCLE; THE FIRST REPORT IS DUE **JULY 28, 2017**. THERE SHALL BE NO DISCHARGE OF FLOATING OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)**

- \* Monitoring requirement only.
- \*\* pH is measured in pH units and is not to be averaged. The pH is to be maintained at or above 6.5 pH units.
- \*\*\* See table below for quarterly sampling.

Minimum Sampling Requirements			
Quarter	Months	Influent Parameters	Report is Due
First	January, February, March	Sample at least once during any month of the quarter	April 28 <sup>th</sup>
Second	April, May, June	Sample at least once during any month of the quarter	July 28th
Third	July, August, September	Sample at least once during any month of the quarter	October 28th
Fourth	October, November, December	Sample at least once during any month of the quarter	January 28th

Note 1 – Sludge that is land applied shall be sampled at the storage basin or application vehicle.

Note 2 – Storage basin freeboard shall be reported as basin water level in feet below the overflow level.

Note 3 – Sample the upper 6 to 8 inches of soil. Composite samples shall be collected from each permitted land application site. See Special Condition 12e Soil Monitoring for additional guidance.

**B. STANDARD CONDITIONS**

In addition to specified conditions stated herein, this permit is subject to the attached Part I standard conditions dated November 1, 2013 and hereby incorporated as though fully set forth herein.

**C. SPECIAL CONDITIONS**

1. Emergency Discharge. An emergency discharge from wastewater storage structures may only occur if rainfall exceeds the 1 in 10 year (Data taken from the Missouri Climate Atlas) or the 24 hour, 25 year (Data taken from NRCS Urban Hydrology for Small Watersheds) rainfall events. **Discharge for any other reason from the storage structure or from land application sites shall constitute a permit violation and shall be reported in accordance with Standard Conditions, Part 1, Section B.2.b.** Monitoring shall take place once per day while discharging. Test results are due on the 28<sup>th</sup> day of the month after the cessation of the discharge. Permittee shall monitor for the following constituents:

Constituent	Units
Flow	MGD
Biochemical Oxygen Demand <sub>5</sub>	mg/L
Total Suspended Solids	mg/l
Ammonia as N	mg/L
pH – Units	SU
Oil & Grease	mg/L
E. coli	#/100mL

2. This permit may be reopened and modified, or alternatively revoked and reissued, to:
  - a. Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
    - 1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
    - 2) controls any pollutant not limited in the permit.
  - b. Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri’s Water Quality Standards.
  - c. Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri’s list of waters of the state not fully achieving the state’s water quality standards, also called the 303(d) list.
  - d. Incorporate the requirement to develop a pretreatment program pursuant to 40 CFR 403.8(a) when the Director of the Water Protection Program determines that a pretreatment program is necessary due to any new introduction of pollutants into the Publicly Owned Treatment Works or any substantial change in the volume or character of pollutants being introduced.

**C. SPECIAL CONDITIONS cont'd**

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

3. All permitted features must be clearly marked in the field.
4. Water Quality Standards
  - a. To the extent required by law, discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria.
  - b. General Criteria. The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
    - 1) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
    - 2) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
    - 3) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
    - 4) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
    - 5) There shall be no significant human health hazard from incidental contact with the water;
    - 6) There shall be no acute toxicity to livestock or wildlife watering;
    - 7) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
    - 8) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.
5. Public access to storage areas and land application sites must be controlled by either positive barriers or remoteness of site.
6. The permittee shall develop, maintain and implement an Operation and Maintenance (O&M) Manual that includes all necessary items to ensure the operation and integrity of the waste handling and land application systems, including key operating procedures, an aerial or topographic site map with the permitted features, land application fields, and irrigation buffer zones marked, and a brief summary of the operation of the facility. The O & M manual shall be made available to the operator and available to the department upon request. The O&M Manual shall be reviewed and updated at least every five years.
7. It is a violation of the Missouri Clean Water Law to fail to pay fees associated with this permit (644.055 RSMo).
8. Hazardous waste regulated under the Missouri Hazardous Waste Law and regulations shall not be land applied under this permit.
9. All paint, solvents, petroleum products and petroleum waste products (except fuels), and storage containers (such as drums, cans, or cartons) shall be stored so that these materials are not exposed to stormwater. Spill prevention, control, and/or management shall be provided sufficient to prevent any spills of these pollutants from entering a water of the state. Any containment system used to implement this requirement shall be constructed of materials compatible with the substances contained and shall also prevent the contamination of groundwater.
10. Good housekeeping practices shall be maintained on the site to keep solid waste from entry into waters of the state.
11. Any pesticide discharge from any point source shall comply with the requirements of Federal Insecticide, Fungicide and Rodenticide Act, as amended (7 U.S.C. 136 et. seq.) and the use of such pesticides shall be in a manner consistent with its label.
12. Land Application System.
  - a. This special condition does not apply to fertilizer products that are exempted under the Missouri Clean Water Law and regulations, 10 CSR 20-6.015(3)(B)8.
  - b. Permitted Sites. This permit authorizes land application of sludge to those sites that have been public noticed and listed in the "Facility Description" of this permit. Only those pollutants listed in the permit application may be land applied. Permittee requests for additional sites must follow permit modification procedures prior to land application. Additionally, the O&M Manual shall be updated to include the additional land application site(s).

**C. SPECIAL CONDITIONS cont'd**

- c. Public Access Restrictions. This permit does not authorize application of sludge to areas to public use areas unless the sludge has been disinfected prior to land application. Public access shall not be allowed to public use application sites when application is occurring.
  - d. All sludge storage structures shall be checked visually at least once/month for structural integrity and visible leaks. Freeboard shall be measured weekly.
  - e. Soil Monitoring.
    - 1) Composite soil samples shall be collected from each field listed in this permit where land application has occurred in the last 12 months or will occur in the next 12 months
    - 2) Soil sampling shall be in accordance with University of Missouri (MU) Guides G9215, Soil Sampling Pastures or G9217, Soil Sampling Hayfields and Row Crops or other methods approved by the department. The recommendation of one composite sample per 20 acres in G9215 and G9217 is not required by this permit, however, this is a useful tool to identify soil fertility fluctuations in larger fields due to past management practices, soil type, and variability of crop yields. There shall be at least one composite sample per 80 acres.
    - 3) Testing shall conform to Recommended Chemical Soil Testing Procedures for North Central Region (North Central Regional Research Publication 221 Revised), or Soil Testing in Missouri (MU Extension Guide EC923), or other methods approved by the department. The Missouri Soil Testing Association provides a list of accredited labs at <http://soilplantlab.missouri.edu/soil/msta.aspx>.
13. Land Application Requirements.
- a. Sludge shall be land applied at agronomic rates to ensure agricultural use of nutrients and prevent contamination of surface and ground water. Agronomic rate (i.e. fertilizer recommendation) is defined as the amount of nutrients needed by the planned crop to produce the expected yield. The sludge application rate is the amount of sludge needed to meet the agronomic rate.
  - b. No land application shall occur during frozen, snow covered, or saturated soil conditions. There shall be no application if precipitation event that is likely to create runoff is forecasted to occur within 24 hours of a planned application.
  - c. Sludge shall not be applied to slopes exceeding twenty (20%) percent. For slopes exceeding 10% the hourly application rate shall not exceed one-half (1/2) the design sustained permeability and in no case shall exceed one-half (1/2) inch per hour.
  - d. Land application shall occur only during daylight hours.
  - e. Setback distances from sensitive features. There shall be no land application within:
    - 1) 300 feet of any well, including unplugged abandoned well
    - 2) 300 feet down gradient of a public or privately owned drinking water impoundment or intake, sinkhole, losing stream, or cave entrance;
    - 3) 150 feet of an occupied residence, public building, or public use area;
    - 4) 50 feet of property line or public road.
  - f. Application Equipment. The land application equipment shall be visually inspected daily during land application to check for equipment malfunctions and leaks. Application equipment shall be operated so as to provide uniform distribution of wastes over the entire land application site and shall be capable of applying the annual design flow during an application period of less than 100 days or 800 hours per year. The perimeter of land application fields shall be checked daily for. Sites that utilize spray irrigation shall monitor for the drifting of spray. Land application equipment shall be calibrated at least once annually.
14. Nutrient Management
- Land application fields listed in this permit shall use the following protocols to determine the agronomic rates and sludge application rates to ensure appropriate agricultural utilization of nutrients.
- a. Agronomic rate shall be based on the following:
    - (1) Crop nutrient removal rate estimates in MU Guide EQ202 Land Application Considerations for Animal Manure or from publications by other land grant universities in adjoining states,
    - (2) Realistic yield goal for each crop. Yield goals should be based on actual crop yield records from multiple years for each field. Good judgment should be used to counteract unusually high or low yields. If a field's yield history is not available the USDA county wide average or other approved source may be used, and
    - (3) The most current soil test.Agronomic rate can also be obtained by using the University of Missouri Extension online fertilizer recommendation calculator at <http://soilplantlab.missouri.edu/soil/scripts/manualentry.aspx>.
  - b. Sludge application rates shall be determined by one the following nutrient based management practices.

**C. SPECIAL CONDITIONS cont'd**

- (1) Nitrogen based management can be used when soil test phosphorus (P) levels are 120 pounds or less per acre using Bray P-1 test method, or if the field has been assessed by Missouri Phosphorus Index (P-index) with a low or medium rating. The annual total nitrogen application shall not exceed the application rate as determined by one of the following methods.
  - (a) For non-legume crops, the application rate as determined by paragraphs 1 and 3 of this section shall be adjusted to account for nitrogen credits from a preceding legume crop and residual nitrogen from the previous year's application.
  - (b) For legume crops, the nitrogen removal capacity of the legume crops should be based on the estimated nitrogen content of the harvested crop as defined in MU Guide EQ202 and a realistic yield goal. The estimated nitrogen content of the crop must be adjusted using nitrogen credits for residual nitrogen fertilizer from the previous year's application.
- (2) Phosphorus based management practice must be used when soil test phosphorus (P) levels are above 120 pounds per acre using Bray P-1 test method, or if the P-index rating is high. The amount of phosphorus applied shall not exceed the planned crop's phosphorus removal estimate from MU Guide EQ822, or from publications by other land grant universities in adjoining states.
- (3) No land application can occur if the P-index rating for a field is very high. The P-index is available at <http://nmplanner.missouri.edu/tools/pindex.asp>

c. Nitrogen based management application rate calculation.

The application rates for nitrogen in any given year or growing season must be adjusted based on the most current sludge and soil test results, and the planned crop's nitrogen recommendation. Plant Available Nitrogen (PAN) from the sludge must be calculated using the results of the most recent sludge analysis.

$$\text{PAN} = [\text{Ammonia Nitrogen} \times 0.6] + [\text{Organic Nitrogen} \times 0.4] + [\text{Nitrate Nitrogen}]$$

Alternate nitrogen availability factors may be considered. Alternate factors shall be submitted to the department for approval

d. Phosphorus based management applications

- (1) When phosphorus based management practice is required the amount of phosphorus applied is to be determined as described in paragraph b2 of this section.
- (2) Multi-year phosphorus applications. When phosphorus based management is required, sludge applications can exceed the annual planned phosphate removal estimate for the crop when a multi-year phosphorus application is utilized. The multi-year application must comply with the following conditions:
  - (a) application rate shall not exceed the nitrogen fertilizer recommendation or the estimated nitrogen removal capacity of the planned crop during the year of the application,
  - (b) the amount of phosphorus banked shall not exceed four years of the estimated crop removal rate for the planned crop rotation.
  - (c) the actual application shall rate shall not exceed the multi-year application rate
  - (d) no additional sludge applications shall occur until the applied phosphorus has been removed from the field by crop removal or harvest.

e. Other Pollutant Limitations and Loading Rates

Oil and grease application shall not exceed 10,000 pounds oil/acre/year for subsurface injection or soil incorporation. For surface application to growing vegetation, the sludge shall not exceed 15% oil & grease content and shall not exceed 1,000 pounds oil/acre. Avoid heavy application of oil and grease within 30 days before planting of row crops.

15. Record Keeping

- a. A daily land application log shall be prepared and kept on file at the permittee office location for each application site showing dates of application, weather condition (sunny, overcast, raining, below freezing etc...), soil moisture condition, application method,
- b. A record of monthly visual storage structure shall be maintained.
- c. A record of land application equipment inspections and calibrations, as well as field perimeter inspections shall be maintained.
- d. All records and monitoring results shall be maintained for at least five years and shall be made available to the department upon request.

**C. SPECIAL CONDITIONS cont'd**

16. Annual Report on Land Application.

An annual report is required in addition to other reporting requirements under Section A of this permit. The annual report shall be submitted by January 28. The report shall include, but is not limited to, a summary of the following:

- a. Record of maintenance and repairs during the year, average number of times per month the facility is checked to see if it is operating properly, and description of any unusual operating conditions encountered during the year.
- b. The number of days the storage structure discharged during the year, the discharge flow, reason the discharge occurred and effluent analysis performed.
- c. A summary for each field used for land application showing number of acres used, planned crop and yield, actual crop and yield, crop nutrient recommendation (N or P lbs./acre), actual amount of nutrient applied (N or P lbs./acre), and total amount of sludge applied (gal. or tons/acre).
- d. For fields where the total nitrogen application exceeds 150 lbs./acre, submit PAN calculations to document that the applied nitrogen will be utilized.
- e. Narrative summary of any problems or deficiencies identified, permit violations, corrective action taken and improvements planned.

**Missouri Department of Natural Resources**  
**FACT SHEET**  
**FOR THE PURPOSE OF RENEWAL**  
**OF**  
**MO-0128241**  
**DAIRY FARMERS OF AMERICA MONETT TREATMENT PLANT**

The Federal Water Pollution Control Act ("Clean Water Act" Section 402 Public Law 92-500 as amended) established the National Pollution Discharge Elimination System (NPDES) permit program. This program regulates the discharge of pollutants from point sources into the waters of the United States, and the release of storm water from certain point sources. All such discharges are unlawful without a permit (Section 301 of the "Clean Water Act"). After a permit is obtained, a discharge not in compliance with all permit terms and conditions is unlawful. Missouri State Operating Permits (MSOPs) are issued by the Director of the Missouri Department of Natural Resources (Department) under an approved program, operating in accordance with federal and state laws (Federal "Clean Water Act" and "Missouri Clean Water Law" Section 644 as amended). MSOPs are issued for a period of five (5) years unless otherwise specified.

As per [40 CFR Part 124.8(a)] and [10 CSR 20-6.020(1)2.] a Factsheet shall be prepared to give pertinent information regarding the applicable regulations, rationale for the development of effluent limitations and conditions, and the public participation process for the Missouri State Operating Permit (operating permit) listed below.

A Factsheet is not an enforceable part of an operating permit.

This Factsheet is for an Industrial Facility.

**Part I – Facility Information**

**FACILITY DESCRIPTION**

All Permitted Features – Industrial Sludge – SIC #2022, 2023

Pretreatment and No-Discharge Sludge Facility

Wastewater flows to Monett WWTF (MO-0021440)

Two aerobic sludge digestion basins / sludge storage tank / sludge is land applied.

Design organic population equivalent is 27215.

Design flow is 27,550 gallons per day (1-in-10 year design flow including net rainfall minus evaporation).

Design average daily flow is 27,400 gallons per day(dry weather flows).

Design sludge production is 1,660 dry tons/year.

Have any changes occurred at this facility or in the receiving water body that effects effluent limit derivation?

- No.

Application Date: 04/29/13

Expiration Date: 10/30/13

Last Inspection: 06/12/13 In Compliance ; Non-Compliance

**PERMITTED FEATURE(S) TABLE:**

PERMITTED FEATURE	TREATMENT LEVEL	EFFLUENT TYPE
045	Discharge to Monett POTW	Industrial waste water
All others	Aerobic digester and land application	Industrial sludge

Permitted Features #004, #005, #039 and #043 were removed. Permitted Features #055, #056, #057 were added.

**Facility Performance History & Comments:**

An environmental concern was reported in March 2010 regarding land application procedures and an inspection was conducted in June 2009. The facility was found to be in compliance in both instances.

**Part II – Receiving Stream Information**

**APPLICABLE DESIGNATIONS OF WATERS OF THE STATE:**

As per Missouri’s Effluent Regulations [10 CSR 20-7.015], the waters of the state are divided into the below listed seven (7) categories. Each category lists effluent limitations for specific parameters, which are presented in each Permitted Feature’s Effluent Limitation Table and further discussed in the Derivation & Discussion of Limits section.

Please mark all appropriate designated waters of the state categories of the receiving stream.

- Missouri or Mississippi River [10 CSR 20-7.015(2)]:
- Lake or Reservoir [10 CSR 20-7.015(3)]:
- Losing [10 CSR 20-7.015(4)]:
- Metropolitan No-Discharge [10 CSR 20-7.015(5)]:
- Special Stream [10 CSR 20-7.015(6)]:
- Subsurface Water [10 CSR 20-7.015(7)]:
- All Other Waters [10 CSR 20-7.015(8)]:

10 CSR 20-7.031 Missouri Water Quality Standards, the Department defines the Clean Water Commission water quality objectives in terms of "water uses to be maintained and the criteria to protect those uses." The receiving stream and 1<sup>st</sup> classified receiving stream’s beneficial water uses to be maintained are located in the Receiving Stream Table located below in accordance with [10 CSR 20-7.031(3)].

**RECEIVING STREAM(S) TABLE:**

WATERBODY NAME	CLASS	WBID	DESIGNATED USES*	DISTANCE TO CLASSIFIED SEGMENT	12-DIGIT HUC**
Hudson Creek	C	03237	LWW, AQL,WBC (B), SCR	0.25 miles	11070207-0703
Clear Creek	C	03239	LWW, AQL,WBC (B)	0.86 miles	11070207-0704
Clear Creek	P	03238	LWW, AQL, WBC (C)	1.66 miles	11070207-0705
Capps Creek	P	03234	IRR, LWW, AQL, WBC (A), SCR, CDF	4.43 miles	11070207-0703
Shoal Creek	P	03230	IRR, LWW AQL, WBC (A), SCR, CLF	2.63 miles	11070207-0706

\* - Irrigation (IRR), Livestock & Wildlife Watering (LWW), Protection of Warm Water Aquatic Life and Human Health-Fish Consumption (AQL), Cool Water Fishery(CLF), Cold Water Fishery (CDF), Whole Body Contact Recreation (WBC), Secondary Contact Recreation (SCR), Drinking Water Supply (DWS), Industrial (IND), Groundwater (GRW). \*\* - Hydrologic Unit Code

**Part III – Rationale and Derivation of Effluent Limitations & Permit Conditions**

**ALTERNATIVE EVALUATIONS FOR NEW FACILITIES:**

As per [10 CSR 20-7.015(4)(A)], discharges to losing streams shall be permitted only after other alternatives including land application, discharges to a gaining stream and connection to a regional wastewater treatment facility have been evaluated and determined to be unacceptable for environmental and/or economic reasons.

Not Applicable ; The facility does not discharge to a Losing Stream as defined by [10 CSR 20-2.010(36)] & [10 CSR 20-7.031(1)(N)], or is an existing facility.

**ANTI-BACKSLIDING:**

A provision in the Federal Regulations [CWA §303(d)(4); CWA §402(c); 40 CFR Part 122.44(I)] that requires a reissued permit to be as stringent as the previous permit with some exceptions.

- All limits in this operating permit are at least as protective as those previously established; therefore, backsliding does not apply.

**ANTIDegradation:**

In accordance with Missouri's Water Quality Standard [10 CSR 20-7.031(2)], the Department is to document by means of Antidegradation Review that the use of a water body's available assimilative capacity is justified. Degradation is justified by documenting the socio-economic importance of a discharging activity after determining the necessity of the discharge.

- No degradation proposed and no further review necessary. Facility did not apply for authorization to increase pollutant loading or to add additional pollutants to their discharge.

**AREA-WIDE WASTE TREATMENT MANAGEMENT & CONTINUING AUTHORITY:**

As per [10 CSR 20-6.010(3)(B)], ...An applicant may utilize a lower preference continuing authority by submitting, as part of the application, a statement waiving preferential status from each existing higher preference authority, providing the waiver does not conflict with any area-wide management plan approved under section 208 of the Federal Clean Water Act or any other regional sewage service and treatment plan approved for higher preference authority by the Department.

**BIOSOLIDS & SEWAGE SLUDGE:**

Biosolids are solid materials resulting from domestic wastewater treatment that meet federal and state criteria for beneficial uses (i.e. fertilizer). Sewage sludge is solids, semi-solids, or liquid residue generated during the treatment of domestic sewage in a treatment works; including but not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment process; and a material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screening generated during preliminary treatment of domestic sewage in a treatment works. Additional information regarding biosolids and sludge is located at the following web address:

<http://dnr.mo.gov/env/wpp/pub/index.html>, items WQ422 through WQ449.

- Permittee land applies biosolids in accordance with Standard Conditions III and a Department approved biosolids management plan.

**COMPLIANCE AND ENFORCEMENT:**

Enforcement is the action taken by the Water Protection Program (WPP) to bring an entity into compliance with the Missouri Clean Water Law, its implementing regulations, and/or any terms and conditions of an operating permit. The primary purpose of the enforcement activity in the WPP is to resolve violations and return the entity to compliance.

Not Applicable ; The permittee/facility is not currently under Water Protection Program enforcement action.

**PRETREATMENT PROGRAM:**

The reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to or in lieu of discharging or otherwise introducing such pollutants into a Publicly Owned Treatment Works [40 CFR Part 403.3(q)].

Not Applicable ; The permittee, at this time, is not required to have a Pretreatment Program or does not have an approved pretreatment program.

**REASONABLE POTENTIAL ANALYSIS (RPA):**

Federal regulation [40 CFR Part 122.44(d)(1)(i)] requires effluent limitations for all pollutants that are or may be discharged at a level that will cause or have the reasonable potential to cause or contribute to an in-stream excursion above narrative or numeric water quality standard.

Not Applicable; A RPA was not conducted for this facility.

**REMOVAL EFFICIENCY:**

Removal efficiency is a method by which the Federal Regulations define Secondary Treatment and Equivalent to Secondary Treatment, which applies to Biochemical Oxygen Demand 5-day (BOD<sub>5</sub>) and Total Suspended Solids (TSS) for Publicly Owned Treatment Works (POTWs)/municipals.

Not Applicable ; Influent monitoring is not required. Also as the facility has no discharge, percent removal is not applicable.

**SANITARY SEWER OVERFLOWS (SSO) AND INFLOW AND INFILTRATION (I&I):**

Sanitary Sewer Overflows (SSOs) are defined as untreated sewage releases and are considered bypassing under state regulation [10 CSR 20-2.010(11)] and should not be confused with the federal definition of bypass. SSOs result from a variety of causes including blockages, line breaks, and sewer defects that can either allow wastewater to backup within the collection system during dry weather conditions or allow excess stormwater and groundwater to enter and overload the collection system during wet weather conditions. SSOs can also result from lapses in sewer system operation and maintenance, inadequate sewer design and construction, power failures, and vandalism. SSOs include overflows out of manholes, cleanouts, broken pipes, and other into waters of the state and onto city streets, sidewalks, and other terrestrial locations.

Inflow and Infiltration (I&I) is defined as unwanted intrusion of stormwater or groundwater into a collection system. This can occur from points of direct connection such as sump pumps, roof drain downspouts, foundation drains, and storm drain cross-connections or through cracks, holes, joint failures, faulty line connections, damaged manholes, and other openings in the collection system itself. I&I results from a variety of causes including line breaks, improperly sealed connections, cracks caused by soil erosion/settling, penetration of vegetative roots, and other sewer defects. In addition, excess stormwater and groundwater entering the collection system from line breaks and sewer defects have the potential to negatively impact the treatment facility.

Missouri RSMo §644.026.1 mandates that the Department require proper maintenance and operation of treatment facilities and sewer systems and proper disposal of residual waste from all such facilities.

At this time, the Department recommends the US EPA's Guide for Evaluating Capacity, Management, Operation and Maintenance (CMOM) Programs At Sanitary Sewer Collection Systems (Document # EPA 305-B-05-002). The CMOM identifies some of the criteria used by the EPA to evaluate a collection system's management, operation, and maintenance and was intended for use by the EPA, state, regulated community, and/or third party entities. The CMOM is applicable to small, medium, and large systems; both public and privately owned; and both regional and satellite collection systems. The CMOM does not substitute for the Clean Water Act, the Missouri Clean Water Law, and both federal and state regulations, as it is not a regulation.

Not Applicable; This facility is not required to develop or implement a program for maintenance and repair of the collection system; however, it is a violation of Missouri State Environmental Laws and Regulations to allow untreated wastewater to discharge to waters of the state.

**SCHEDULE OF COMPLIANCE (SOC):**

Per 644.051.4 RSMo, a permit may be issued with a Schedule of Compliance (SOC) to provide time for a facility to come into compliance with new state or federal effluent regulations, water quality standards, or other requirements. Such a schedule is not allowed if the facility is already in compliance with the new requirement, or if prohibited by other statute or regulation. A SOC includes an enforceable sequence of interim requirements (actions, operations, or milestone events) leading to compliance with the Missouri Clean Water Law, its implementing regulations, and/or the terms and conditions of an operating permit. *See also* Section 502(17) of the Clean Water Act, and 40 CFR §122.2. For new effluent limitations, the permit includes interim monitoring for the specific parameter to demonstrate the facility is not already in compliance with the new requirement. Per 40 CFR § 122.47(a)(1) and 10 CSR 20-7.031(10), compliance must occur as soon as possible. If the permit provides a schedule for meeting new water quality based effluent limits, a SOC must include an enforceable, final effluent limitation in the permit even if the SOC extends beyond the life of the permit.

A SOC is not allowed:

- For effluent limitations based on technology-based standards established in accordance with federal requirements, if the deadline for compliance established in federal regulations has passed. 40 CFR § 125.3.
- For a newly constructed facility in most cases. Newly constructed facilities must meet applicable effluent limitations when discharge begins, because the facility has installed the appropriate control technology as specified in a permit or antidegradation review. A SOC is allowed for a new water quality based effluent limit that was not included in a previously public noticed permit or antidegradation review, which may occur if a regulation changes during construction.
- To develop a TMDL, UAA, or other study associated with development of a site specific criterion. A facility is not prohibited from conducting these activities, but a SOC may not be granted for conducting these activities.

In order to provide guidance to Permit Writers in developing SOC's, and attain a greater level of consistency, on October 25, 2012 the department issued a policy on development of SOC's. This policy provides guidance to Permit Writers on the standard time frames for schedules for common activities, and guidance on factors that may modify the length of the schedule such as an affordability analysis.

Not Applicable ; This permit does not contain a SOC.

**SPILL REPORTING:**

Per 10 CSR 24-3.010, any emergency involving a hazardous substance must be reported to the department's 24 hour Environmental Emergency Response hotline at (573) 634-2436 at the earliest practicable moment after discovery. The department may require the submittal of a written report detailing measures taken to clean up a spill. These reporting requirements apply whether or not the spill results in chemicals or materials leaving the permitted property or reaching waters of the state. This requirement is in addition to the Noncompliance Reporting requirement found in Standard Conditions Part I.

**STORM WATER POLLUTION PREVENTION PLAN (SWPPP):**

In accordance with 40 CFR 122.44(k) *Best Management Practices (BMPs)* to control or abate the discharge of pollutants when: (1) Authorized under section 304(e) of the Clean Water Act (CWA) for the control of toxic pollutants and hazardous substances from ancillary industrial activities; (2) Authorized under section 402(p) of the CWA for the control of storm water discharges; (3) Numeric effluent limitations are infeasible; or (4) the practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA.

In accordance with the EPA's *Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators*, (Document number EPA 833-B-09-002) [published by the United States Environmental Protection Agency (USEPA) in February 2009], BMPs are measures or practices used to reduce the amount of pollution entering (regarding this operating permit) waters of the state. BMPs may take the form of a process, activity, or physical structure.

Additionally in accordance with the Storm Water Management, a SWPPP is a series of steps and activities to (1) identify sources of pollution or contamination, and (2) select and carry out actions which prevent or control the pollution of storm water discharges.

Not Applicable ; At this time, the permittee is not required to develop and implement a SWPPP.

**VARIANCE:**

As per the Missouri Clean Water Law § 644.061.4, variances shall be granted for such period of time and under such terms and conditions as shall be specified by the commission in its order. The variance may be extended by affirmative action of the commission. In no event shall the variance be granted for a period of time greater than is reasonably necessary for complying with the Missouri Clean Water Law §§644.006 to 644.141 or any standard, rule or regulation promulgated pursuant to Missouri Clean Water Law §§644.006 to 644.141.

Not Applicable ; This operating permit is not drafted under premises of a petition for variance.

**WASTELOAD ALLOCATIONS (WLA) FOR LIMITS:**

As per [10 CSR 20-2.010(78)], the amount of pollutant each discharger is allowed by the Department to release into a given stream after the Department has determined total amount of pollutant that may be discharged into that stream without endangering its water quality.

$$C = \frac{(C_s \times Q_s) + (C_e \times Q_e)}{(Q_e + Q_s)} \quad (\text{EPA/505/2-90-001, Section 4.5.5})$$

Where C = downstream concentration  
Cs = upstream concentration  
Qs = upstream flow  
Ce = effluent concentration  
Qe = effluent flow

Chronic wasteload allocations were determined using applicable chronic water quality criteria (CCC: criteria continuous concentration) and stream volume of flow at the edge of the mixing zone (MZ). Acute wasteload allocations were determined using applicable water quality criteria (CMC: criteria maximum concentration) and stream volume of flow at the edge of the zone of initial dilution (ZID).

Water quality based maximum daily and average monthly effluent limitations were calculated using methods and procedures outlined in USEPA's "Technical Support Document For Water Quality-based Toxics Control" (EPA/505/2-90-001).

Number of Samples "n":

Additionally, in accordance with the TSD for water quality-based permitting, effluent quality is determined by the underlying distribution of daily values, which is determined by the Long Term Average (LTA) associated with a particular Wasteload Allocation (WLA) and by the Coefficient of Variation (CV) of the effluent concentrations. Increasing or decreasing the monitoring frequency does not affect this underlying distribution or treatment performance, which should be, at a minimum, be targeted to comply with the values dictated by the WLA. Therefore, it is recommended that the actual planned frequency of monitoring normally be used to determine the value of "n" for calculating the AML. However, in situations where monitoring frequency is once per month or less, a higher value for "n" must be assumed for AML derivation purposes. Thus, the statistical procedure being employed using an assumed number of samples is "n = 4" at a minimum. For Total Ammonia as Nitrogen, "n = 30" is used.

Not Applicable; Wasteload allocations were not calculated.

**WLA MODELING:**

There are two general types of effluent limitations, technology-based effluent limits (TBELs) and water quality based effluent limits (WQBELs). If TBELs do not provide adequate protection for the receiving waters, then WQBEL must be used.

Not Applicable; A WLA study was either not submitted or determined not applicable by Department staff.

**WATER QUALITY STANDARDS:**

Per [10 CSR 20-7.031(3)], General Criteria shall be applicable to all waters of the state at all times including mixing zones. Additionally, [40 CFR 122.44(d)(1)] directs the Department to establish in each NPDES permit to include conditions to achieve water quality established under Section 303 of the Clean Water Act, including State narrative criteria for water quality.

**WHOLE EFFLUENT TOXICITY (WET) TEST:**

A WET test is a quantifiable method of determining if a discharge from a facility may be causing toxicity to aquatic life by itself, in combination with or through synergistic responses when mixed with receiving stream water.

Not Applicable; At this time, the permittee is not required to conduct WET test for this facility.

**303(d) LIST & TOTAL MAXIMUM DAILY LOAD (TMDL):**

Section 303(d) of the federal Clean Water Act requires that each state identify waters that are not meeting water quality standards and for which adequate water pollution controls have not been required. Water quality standards protect such beneficial uses of water as whole body contact (such as swimming), maintaining fish and other aquatic life, and providing drinking water for people, livestock and wildlife. The 303(d) list helps state and federal agencies keep track of waters that are impaired but not addressed by normal water pollution control programs.

A TMDL is a calculation of the maximum amount of a given pollutant that a body of water can absorb before its water quality is affected. If a water body is determined to be impaired as listed on the 303(d) list, then a watershed management plan will be developed that shall include the TMDL calculation

2018 Clear Creek - Nutrient/Eutrophication Biol. Indicators, Dissolved Oxygen.

2015 Capps Creek – E. Coli.

Applicable; Capps Creek is listed on the 2013 Missouri 303(d) List for *E.coli* and Clear Creek is listed on the 2013 Missouri 303(d) List for Nutrient/Eutrophication Biological Indicators, and Dissolved Oxygen.

– This facility is not considered to be a source of the above listed pollutant(s) or considered to contribute to the impairment of Capps Creek or for Dissolved Oxygen for Clear Creek.

– This facility has the potential to contribute to the Nutrient/Eutrophication Biological Indicators for Clear Creek. The department is scheduled to develop a TMDL for Capps Creek in federal fiscal year (FY) 2015 and Clear Creek in FY 2018.

**Part V – Permit Limits Determination**

**All Permitted Features** – Emergency Discharge from holding tank or land application sites.

Effluent limitations derived and established in the below Effluent Limitations Table are based on current operations of the facility. Future permit action due to facility modification may contain new operating permit terms and conditions that supersede the terms and conditions, including effluent limitations, of this operating permit.

**EFFLUENT LIMITATIONS TABLE:**

PARAMETER	UNIT	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
FLOW	GPD	*		*	No	
BOD <sub>5</sub>	MG/L		45	30	No	
TSS	MG/L		45	30	No	
pH	SU	6.5-9.0		6.5-9.0	No	
AMMONIA AS N	MG/L	*		*	No	
FECAL COLIFORM	#/100ML	*		*	YES	REMOVED
ESCHERICHIA COLI	***	*		*	YES	****

\* - Monitoring requirement only.

\*\*\* - # of colonies/100mL; the Monthly Average for *E. coli* is a geometric mean.

\*\*\*\* - Parameter not previously established in previous state operating permit.

**All Permitted Features – DERIVATION AND DISCUSSION OF LIMITS:**

- **Flow.** In accordance with [40 CFR Part 122.44(i)(1)(ii)] the volume of effluent discharged from each Permitted Feature is needed to assure compliance with permitted effluent limitations. If the permittee is unable to obtain effluent flow, then it is the responsibility of the permittee to inform the Department, which may require the submittal of an operating permit modification.
- **Biochemical Oxygen Demand (BOD<sub>5</sub>).** Effluent limitations from the previous state operating permit have been reassessed and verified that they are still protective of the receiving stream’s Water Quality. Therefore, effluent limitations have been retained from previous state operating permit, please see the **APPLICABLE DESIGNATION OF WATERS OF THE STATE** sub-section of the **Receiving Stream Information.**
- **Total Suspended Solids (TSS).** Effluent limitations from the previous state operating permit have been reassessed and verified that they are still protective of the receiving stream’s Water Quality. Therefore, effluent limitations have been retained from previous state operating permit, please see the **APPLICABLE DESIGNATION OF WATERS OF THE STATE** sub-section of the **Receiving Stream Information.**

- **pH.** Effluent limitations have been retained from previous state operating permit, please see the **APPLICABLE DESIGNATION OF WATERS OF THE STATE** sub-section of the **Receiving Stream Information.**
- **Total Ammonia Nitrogen.** Monitoring only from the previous state operating permit was reassessed and verified that they are still protective of the receiving stream's Water Quality. Therefore, effluent limitations have been retained from previous state operating permit, please see the **APPLICABLE DESIGNATION OF WATERS OF THE STATE** sub-section of the **Receiving Stream Information.**
- **Escherichia coli (E. coli).** Monitoring only in case of an emergency discharge.
- **Freeboard.** Monitoring requirement only.
- **Precipitation.** Monitoring requirement only
- **Minimum Sampling and Reporting Frequency Requirements.**

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
Flow	once/day while discharging	Quarterly
Biochemical Oxygen Demand <sub>5</sub>	once/week while discharging	
Total Suspended Solids	once/week while discharging	
Ammonia as N	once/week while discharging	
pH	once/week while discharging	
E.coli	once/week while discharging	
Freeboard	once/week	
Precipitation	once/day	

**All Permitted Features except #045 – Land Application Operation Monitoring**

PARAMETER	UNIT	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
Volume of Sludge Applied	gallons	*			NO	
Application Area	acres	*			NO	
Application Rate	Inches/acre	*			NO	
<b>SOIL MONITORING</b>						
Ammonia s N	mg/kg	*			NO	
Chlorides	mg/kg	*			NO	
Nitrate Nitrogen as N	mg/kg	*			NO	
pH - Units	SU	*			NO	
Available Phosphorus as P (Bray 1-P method)	mg/kg	*			NO	
Total Sodium	mg/kg	*			NO	
Exchangeable Sodium	%	*			NO	

\* - Monitoring requirement only.

**All Permitted Features – DERIVATION AND DISCUSSION OF LIMITS:**

- **Volume of Sludge Applied.** Monitoring requirement only. Monitoring for the Volume Irrigated is included to determine if proper application is occurring on the land application fields.

- **Application Area.** Monitoring requirement only. Monitoring for the Application Area is included to determine if proper application is occurring on the land application fields.
- **Application Rate.** Monitoring requirement only. Monitoring for the Application Rate is included to determine if proper application is occurring on the land application fields.
- **Ammonia as N.** Monitoring requirement only. Monitoring for Ammonia as N is included to determine nutrient loading rates on the land application fields. [10 CSR 20-8.020(15)(F)7.]
- **Chlorides.** Monitoring requirement only. Monitoring for Chlorides is included to determine nutrient loading rates on the land application fields. [10 CSR 20-8.020(15)(F)8.]
- **Nitrate Nitrogen as N.** Monitoring requirement only. Monitoring for Nitrate Nitrogen as N is included to determine nutrient loading rates on the land application fields. [10 CSR 20-8.020(15)(F)7.]
- **pH.** Monitoring requirement only. Monitoring for pH is included to determine nutrient loading rates on the land application fields. [10 CSR 20-8.020(15)(F)7.]
- **Available Phosphorus as P.** Monitoring requirement only. Monitoring for Available Phosphorus as P is included to determine nutrient loading rates on the land application fields. [10 CSR 20-8.020(15)(F)7.]
- **Total Sodium.** Monitoring requirement only. Monitoring for Total Sodium is included to determine nutrient loading rates on the land application fields. [10 CSR 20-8.020(15)(F)8.]
- **Exchangeable Sodium.** Monitoring requirement only. Monitoring for Exchangeable Sodium is included to determine nutrient loading rates on the land application fields. [10 CSR 20-8.020(15)(F)8.]

**Minimum Sampling and Reporting Frequency Requirements.**

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
Volume Irrigated	once/day	once/year
Application Area	once/day	once/year
Application Rate	once/day	once/year
Ammonia as N	once/year	once/year
Chlorides	once/year	once/year
Nitrate Nitrogen as N	once/year	once/year
pH	once/3 years	once/3 years
Available Phosphorus as P	once/3 years	once/3 years
Total Sodium	once/3 years	once/3 years
Exchangeable Sodium	once/3 years	once/3 years

**Permitted Feature #045 – Main facility permitted feature.**

PARAMETER	UNIT	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
pH	gallons	*			NO	
Total Kjeldahl Nitrogen as N	acres	*			NO	
Nitrate/Nitrite as N	Inches/ acre	*			NO	
Ammonia as N	mg/kg	*			NO	
Chlorides	mg/kg	*			NO	
Total Phosphorus as P	mg/kg	*			NO	
Percent Solids	SU	*			NO	
Total Boron	mg/kg	*			NO	

\* - Monitoring requirement only.

**All Permitted Features – DERIVATION AND DISCUSSION OF LIMITS:**

- **pH.** Monitoring requirement only. Monitoring for pH is included to determine nutrient loading rates on the land application fields. [10 CSR 20-8.020(15)(F)7.]
- **Total Kjeldahl Nitrogen as N.** Monitoring requirement only. Monitoring for Total Kjeldahl Nitrogen as N is included to determine nutrient loading rates on the land application fields. [10 CSR 20-8.020(15)(F)7.]
- **Nitrate Nitrogen as N.** Monitoring requirement only. Monitoring for Nitrate Nitrogen as N is included to determine nutrient loading rates on the land application fields. [10 CSR 20-8.020(15)(F)7.]
- **Ammonia as N.** Monitoring requirement only. Monitoring for Ammonia as N is included to determine nutrient loading rates on the land application fields. [10 CSR 20-8.020(15)(F)7.]
- **Total Phosphorus as P.** Monitoring requirement only. Monitoring for Total Phosphorus as P is included to determine nutrient loading rates on the land application fields. [10 CSR 20-8.020(15)(F)7.]
- **Percent Solids.** Monitoring requirement only. Monitoring for Percent Solids is included to determine nutrient loading rates on the land application fields. [10 CSR 20-8.020(15)(F)8.]
- **Total Boron.** Monitoring requirement only. Monitoring for Total Boron is included to determine nutrient loading rates on the land application fields. [10 CSR 20-8.020(15)(F)8.]

**Minimum Sampling and Reporting Frequency Requirements.**

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
pH	once/day	once/year
Total Kjeldahl Nitrogen as N	once/day	once/year
Nitrate/Nitrite as N	once/year	once/year
Ammonia as N	once/year	once/year
Total Phosphorus as P	once/year	once/year
Percent Solids	once/3 years	once/3 years
Total Boron	once/3 years	once/3 years

## **Part VI – Finding of Affordability**

Pursuant to Section 644.145, RSMo., the Department is required to determine whether a permit or decision is affordable and makes a finding of affordability for certain permitting and enforcement decisions. This requirement applies to discharges from combined or separate sanitary sewer systems or publically-owned treatment works.

Not Applicable; The Department is not required to determine findings of affordability because the permit contains no new conditions or requirements that convey a new cost to the facility.

## **Part VII – Administrative Requirements**

On the basis of preliminary staff review and the application of applicable standards and regulations, the Department, as administrative agent for the Missouri Clean Water Commission, proposes to issue a permit(s) subject to certain effluent limitations, schedules, and special conditions contained herein and within the operating permit. The proposed determinations are tentative pending public comment.

### **PERMIT SYNCHRONIZATION:**

The Department of Natural Resources is currently undergoing a synchronization process for operating permits. Permits are normally issued on a five-year term, but to achieve synchronization many permits will need to be issued for less than the full five years allowed by regulation. The intent is that all permits within a watershed will move through the Watershed Based Management (WBM) cycle together will all expire in the same fiscal year. This will allow further streamlining by placing multiple permits within a smaller geographic area on public notice simultaneously, thereby reducing repeated administrative efforts. This will also allow the department to explore a watershed based permitting effort at some point in the future. Renewal applications must continue to be submitted within 180 days of expiration, however, in instances where effluent data from the previous renewal is less than 4 years old, that data may be re-submitted to meet the requirements of the renewal application. If the permit provides a schedule of compliance for meeting new water quality based effluent limits beyond the expiration date of the permit, the time remaining in the schedule of compliance will be allotted in the renewed permit.

### **PUBLIC NOTICE:**

The Department shall give public notice that a draft permit has been prepared and its issuance is pending. Additionally, public notice will be issued if a public hearing is to be held because of a significant degree of interest in and water quality concerns related to a draft permit. No public notice is required when a request for a permit modification or termination is denied; however, the requester and permittee must be notified of the denial in writing.

The Department must issue public notice of a pending operating permit or of a new or reissued statewide general permit. The public comment period is the length of time not less than 30 days following the date of the public notice which interested persons may submit written comments about the proposed permit.

For persons wanting to submit comments regarding this proposed operating permit, then please refer to the Public Notice page located at the front of this draft operating permit. The Public Notice page gives direction on how and where to submit appropriate comments.

- The Public Notice period for this operating permit was from December 13, 2013 to January 13, 2014. No responses were received.

**DATE OF FACT SHEET:** 1/31/2014

### **COMPLETED BY:**

**GREG CALDWELL, ENVIRONMENTAL SPECIALIST III**  
**MISSOURI DEPARTMENT OF NATURAL RESOURCES**  
**WATER PROTECTION PROGRAM**  
**OPERATING PERMITS SECTION - INDUSTRIAL UNIT**  
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STANDARD CONDITIONS FOR NPDES PERMITS  
ISSUED BY  
THE MISSOURI DEPARTMENT OF NATURAL RESOURCES  
MISSOURI CLEAN WATER COMMISSION  
REVISED  
NOVEMBER 1, 2013

These Standard Conditions incorporate permit conditions as required by 40 CFR 122.41 or other applicable state statutes or regulations. These minimum conditions apply unless superseded by requirements specified in the permit.

## Part I – General Conditions

### Section A – Sampling, Monitoring, and Recording

1. **Sampling Requirements.**
  - a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
  - b. All samples shall be taken at the outfall(s) or Missouri Department of Natural Resources (Department) approved sampling location(s), and unless specified, before the effluent joins or is diluted by any other body of water or substance.
2. **Monitoring Requirements.**
  - a. Records of monitoring information shall include:
    - i. The date, exact place, and time of sampling or measurements;
    - ii. The individual(s) who performed the sampling or measurements;
    - iii. The date(s) analyses were performed;
    - iv. The individual(s) who performed the analyses;
    - v. The analytical techniques or methods used; and
    - vi. The results of such analyses.
  - b. If the permittee monitors any pollutant more frequently than required by the permit at the location specified in the permit using test procedures approved under 40 CFR Part 136, or another method required for an industry-specific waste stream under 40 CFR subchapters N or O, the results of such monitoring shall be included in the calculation and reported to the Department with the discharge monitoring report data (DMR) submitted to the Department pursuant to Section B, paragraph 7.
3. **Sample and Monitoring Calculations.** Calculations for all sample and monitoring results which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in the permit.
4. **Test Procedures.** The analytical and sampling methods used shall conform to the reference methods listed in 10 CSR 20-7.015 unless alternates are approved by the Department. The facility shall use sufficiently sensitive analytical methods for detecting, identifying, and measuring the concentrations of pollutants. The facility shall ensure that the selected methods are able to quantify the presence of pollutants in a given discharge at concentrations that are low enough to determine compliance with Water Quality Standards in 10 CSR 20-7.031 or effluent limitations unless provisions in the permit allow for other alternatives. A method is “sufficiently sensitive” when; 1) the method minimum level is at or below the level of the applicable water quality criterion for the pollutant or, 2) the method minimum level is above the applicable water quality criterion, but the amount of pollutant in a facility’s discharge is high enough that the method detects and quantifies the level of pollutant in the discharge, or 3) the method has the lowest minimum level of the analytical methods approved under 10 CSR 20-7.015. These methods are also required for parameters that are listed as monitoring only, as the data collected may be used to determine if limitations need to be established. A permittee is responsible for working with their contractors to ensure that the analysis performed is sufficiently sensitive.
5. **Record Retention.** Except for records of monitoring information required by the permit related to the permittee’s sewage sludge use and disposal activities, which shall be retained for a period of at least five (5) years (or longer as required by 40 CFR part 503), the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by the permit, and records of all data used to complete the application for the permit, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time.

6. **Illegal Activities.**
  - a. The Federal Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under the permit shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than two (2) years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than four (4) years, or both.
  - b. The Missouri Clean Water Law provides that any person or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained pursuant to sections 644.006 to 644.141 shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than six (6) months, or by both. Second and successive convictions for violation under this paragraph by any person shall be punished by a fine of not more than \$50,000 per day of violation, or by imprisonment for not more than two (2) years, or both.

### Section B – Reporting Requirements

1. **Planned Changes.**
  - a. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility when:
    - i. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or
    - ii. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42(a)(1);
    - iii. The alteration or addition results in a significant change in the permittee’s sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan;
    - iv. Any facility expansions, production increases, or process modifications which will result in a new or substantially different discharge or sludge characteristics must be reported to the Department 60 days before the facility or process modification begins. Notification may be accomplished by application for a new permit. If the discharge does not violate effluent limitations specified in the permit, the facility is to submit a notice to the Department of the changed discharge at least 30 days before such changes. The Department may require a construction permit and/or permit modification as a result of the proposed changes at the facility.
2. **Twenty-Four Hour Reporting.**
  - a. The permittee shall report any noncompliance which may endanger health or the environment. Relevant information shall be provided orally or via the current electronic method approved by the Department, within 24 hours from the time the permittee becomes aware of the circumstances, and shall be reported to the appropriate Regional Office during normal business hours or the Environmental Emergency Response hotline at 573-634-2436 outside of normal business hours. A written submission shall also be provided within five (5) business days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.



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- b. The following shall be included as information which must be reported within 24 hours under this paragraph.
    - i. Any unanticipated bypass which exceeds any effluent limitation in the permit.
    - ii. Any upset which exceeds any effluent limitation in the permit.
    - iii. Violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the permit required to be reported within 24 hours.
  - c. The Department may waive the written report on a case-by-case basis for reports under paragraph 2. b. of this section if the oral report has been received within 24 hours.
3. **Sanitary Sewer Overflow Reporting.** The following requirements solely reflect reporting obligations, and reporting does not necessarily reflect noncompliance, which may depend on the circumstances of the incident reported.
- a. **Twenty-Four Hour (24-Hour) Reporting.** The permittee or owner shall report any incident in which wastewater escapes the collection system such that it reaches waters of the state or it may pose an imminent or substantial endangerment to the health or welfare of persons. Relevant information shall be provided orally or via the current electronic method approved by the Department within 24 hours from the time the permittee becomes aware of the incident. A written submission shall also be provided within five (5) business days of the time the permittee or owner becomes aware of the incident. The Department may waive the written report on a case-by-case basis if the oral report has been received within 24 hours. The five (5) day reports may be provided via the current electronic method approved by the Department.
  - b. **Incidents Reported via Discharge Monitoring Reports (DMRs).** The permittee or owner shall report any event in which wastewater escapes the collection system, which does not enter waters of the state and is not expected to pose an imminent or substantial endangerment to the health or welfare of persons, which occur typically during wet weather events. Relevant information shall be provided with the permittee's or owner's DMRs.
4. **Anticipated Noncompliance.** The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. The notice shall be submitted to the Department 60 days prior to such changes or activity.
5. **Compliance Schedules.** Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of the permit shall be submitted no later than 14 days following each schedule date. The report shall provide an explanation for the instance of noncompliance and a proposed schedule or anticipated date, for achieving compliance with the compliance schedule requirement.
6. **Other Noncompliance.** The permittee shall report all instances of noncompliance not reported under paragraphs 2, 3, 4, and 7 of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph 2. a. of this section.
7. **Other Information.** Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information.
8. **Discharge Monitoring Reports.**
- a. Monitoring results shall be reported at the intervals specified in the permit.
  - b. Monitoring results must be reported to the Department via the current method approved by the Department, unless the permittee has been granted a waiver from using the method. If the permittee has been granted a waiver, the permittee must use forms provided by the Department.
  - c. Monitoring results shall be reported to the Department no later than the 28<sup>th</sup> day of the month following the end of the reporting period.

## Section C – Bypass/Upset Requirements

1. **Definitions.**
  - a. *Bypass*: the intentional diversion of waste streams from any portion of a treatment facility.
  - b. *Severe Property Damage*: substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
  - c. *Upset*: an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
2. **Bypass Requirements.**
  - a. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs 2. b. and 2. c. of this section.
  - b. Notice.
    - i. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least 10 days before the date of the bypass.
    - ii. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Section B – Reporting Requirements, paragraph 5 (24-hour notice).
  - c. Prohibition of bypass.
    - i. Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless:
      1. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
      2. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
      3. The permittee submitted notices as required under paragraph 2. b. of this section.
    - ii. The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three (3) conditions listed above in paragraph 2. c. i. of this section.
3. **Upset Requirements.**
  - a. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph 3. b. of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
  - b. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
    - i. An upset occurred and that the permittee can identify the cause(s) of the upset;
    - ii. The permitted facility was at the time being properly operated; and
    - iii. The permittee submitted notice of the upset as required in Section B – Reporting Requirements, paragraph 2. b. ii. (24-hour notice).
    - iv. The permittee complied with any remedial measures required under Section D – Administrative Requirements, paragraph 4.
  - c. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.



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Section D – Administrative Requirements

1. **Duty to Comply.** The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Missouri Clean Water Law and Federal Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.
  - a. The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Federal Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.
  - b. The Federal Clean Water Act provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed \$25,000 per day for each violation. The Federal Clean Water Act provides that any person who negligently violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of \$2,500 to \$25,000 per day of violation, or imprisonment of not more than one (1) year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than \$50,000 per day of violation, or by imprisonment of not more than two (2) years, or both. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of \$5,000 to \$50,000 per day of violation, or imprisonment for not more than three (3) years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than \$100,000 per day of violation, or imprisonment of not more than six (6) years, or both. Any person who knowingly violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than \$500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than \$1,000,000 and can be fined up to \$2,000,000 for second or subsequent convictions.
  - c. Any person may be assessed an administrative penalty by the EPA Director for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Administrative penalties for Class I violations are not to exceed \$10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$25,000. Penalties for Class II violations are not to exceed \$10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$125,000.
  - d. It is unlawful for any person to cause or permit any discharge of water contaminants from any water contaminant or point source located in Missouri in violation of sections 644.006 to 644.141 of the Missouri Clean Water Law, or any standard, rule or regulation promulgated by the commission. In the event the commission or the director determines that any provision of sections 644.006 to 644.141 of the Missouri Clean Water Law or standard, rules, limitations or regulations promulgated pursuant thereto, or permits issued by, or any final abatement order, other order, or determination made by the commission or the director, or any filing requirement pursuant to sections 644.006 to 644.141 of the Missouri Clean Water Law or any other provision which this state is required to enforce pursuant to any federal water pollution control act, is being, was, or is in imminent danger of being violated, the commission or director may cause to have instituted a civil action in any court of competent jurisdiction for the injunctive relief to prevent any such violation or further violation or for the assessment of a penalty not to exceed \$10,000 per day for each day, or part thereof, the violation occurred and continues to occur, or both, as the court deems proper. Any person who willfully or negligently commits any violation in this paragraph shall, upon conviction, be punished by a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than one year, or both. Second and successive convictions for violation of the same provision of this paragraph by any person shall be punished by a fine of not more than \$50,000 per day of violation, or by imprisonment for not more than two (2) years, or both.
2. **Duty to Reapply.**
  - a. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.
  - b. A permittee with a currently effective site-specific permit shall submit an application for renewal at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Department. (The Department shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)
  - c. A permittees with currently effective general permit shall submit an application for renewal at least 30 days before the existing permit expires, unless the permittee has been notified by the Department that an earlier application must be made. The Department may grant permission for a later submission date. (The Department shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)
3. **Need to Halt or Reduce Activity Not a Defense.** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
4. **Duty to Mitigate.** The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.
5. **Proper Operation and Maintenance.** The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.
6. **Permit Actions.**
  - a. Subject to compliance with statutory requirements of the Law and Regulations and applicable Court Order, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:
    - i. Violations of any terms or conditions of this permit or the law;
    - ii. Having obtained this permit by misrepresentation or failure to disclose fully any relevant facts;
    - iii. A change in any circumstances or conditions that requires either a temporary or permanent reduction or elimination of the authorized discharge; or
    - iv. Any reason set forth in the Law or Regulations.
  - b. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

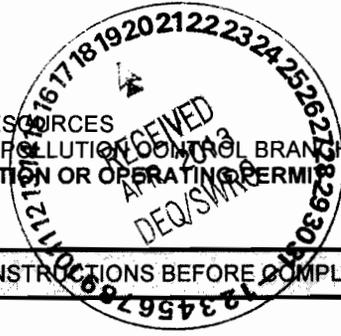


STANDARD CONDITIONS FOR NPDES PERMITS  
ISSUED BY  
THE MISSOURI DEPARTMENT OF NATURAL RESOURCES  
MISSOURI CLEAN WATER COMMISSION  
REVISED  
NOVEMBER 1, 2013

7. **Permit Transfer.**
- a. Subject to 10 CSR 20-6.010, an operating permit may be transferred upon submission to the Department of an application to transfer signed by the existing owner and the new owner, unless prohibited by the terms of the permit. Until such time the permit is officially transferred, the original permittee remains responsible for complying with the terms and conditions of the existing permit.
  - b. The Department may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Missouri Clean Water Law or the Federal Clean Water Act.
  - c. The Department, within 30 days of receipt of the application, shall notify the new permittee of its intent to revoke or reissue or transfer the permit.
8. **Toxic Pollutants.** The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Federal Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the Federal Clean Water Act within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.
9. **Property Rights.** This permit does not convey any property rights of any sort, or any exclusive privilege.
10. **Duty to Provide Information.** The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.
11. **Inspection and Entry.** The permittee shall allow the Department, or an authorized representative (including an authorized contractor acting as a representative of the Department), upon presentation of credentials and other documents as may be required by law, to:
- a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the permit;
  - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
  - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
  - d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Federal Clean Water Act or Missouri Clean Water Law, any substances or parameters at any location.
12. **Closure of Treatment Facilities.**
- a. Persons who cease operation or plan to cease operation of waste, wastewater, and sludge handling and treatment facilities shall close the facilities in accordance with a closure plan approved by the Department.
  - b. Operating Permits under 10 CSR 20-6.010 or under 10 CSR 20-6.015 are required until all waste, wastewater, and sludges have been disposed of in accordance with the closure plan approved by the Department and any disturbed areas have been properly stabilized. Disturbed areas will be considered stabilized when perennial vegetation, pavement, or structures using permanent materials cover all areas that have been disturbed. Vegetative cover, if used, shall be at least 70% plant density over 100% of the disturbed area.
13. **Signatory Requirement.**
- a. All permit applications, reports required by the permit, or information requested by the Department shall be signed and certified. (See 40 CFR 122.22 and 10 CSR 20-6.010)
  - b. The Federal Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six (6) months per violation, or by both.
14. **Severability.** The provisions of the permit are severable, and if any provision of the permit, or the application of any provision of the permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of the permit, shall not be affected thereby.
- c. The Missouri Clean Water Law provides that any person who knowingly makes any false statement, representation or certification in any application, record, report, plan, or other document filed or required to be maintained pursuant to sections 644.006 to 644.141 shall, upon conviction, be punished by a fine of not more than ten thousand dollars, or by imprisonment for not more than six months, or by both.



MISSOURI DEPARTMENT OF NATURAL RESOURCES  
 WATER PROTECTION PROGRAM, WATER POLLUTION CONTROL BRANCH  
**FORM A - APPLICATION FOR CONSTRUCTION OR OPERATING PERMIT**  
 UNDER MISSOURI CLEAN WATER LAW



AP 15311

FOR AGENCY USE ONLY	
CHECK NUMBER	
DATE RECEIVED 4/29/13	FEE SUBMITTED 15.

**Note** ▶ PLEASE READ THE ACCOMPANYING INSTRUCTIONS BEFORE COMPLETING THIS FORM.

1. This application is for:

- An operating permit and antidegradation review public notice
- A construction permit following an appropriate operating permit and antidegradation review public notice
- A construction permit and concurrent operating permit and antidegradation review public notice
- A construction permit (submitted before Aug. 30, 2008 or antidegradation review is not required)
- An operating permit for a new or unpermitted facility
- An operating permit renewal: permit # MO- 0128241
- An operating permit modification: permit # MO-

Construction Permit # \_\_\_\_\_  
 Expiration Date 10/30/2013  
 Reason: \_\_\_\_\_

1.1 Is the appropriate fee included with the application? (See instructions for appropriate fee)  YES  NO

**2. FACILITY**

NAME DAIRY FARMERS OF AMERICA MONETT PRETREATMENT PLANT		TELEPHONE WITH AREA CODE (417) 235-9007	
ADDRESS (PHYSICAL) 49 NORTH EISENHOWER		CITY MONETT	FAX (417) 235-9007
		STATE MO	ZIP CODE 65708

**3. OWNER**

NAME DAIRY FARMERS OF AMERICA, INC.		E-MAIL ADDRESS	TELEPHONE WITH AREA CODE (816) 801-6455
ADDRESS (MAILING) 10220 N. AMBASSADOR DRIVE, PO BOX 909700		CITY KANSAS CITY	FAX (816) 801-6456
		STATE MO	ZIP CODE 64153

3.1 Request review of draft permit prior to public notice?  YES  NO

**4. CONTINUING AUTHORITY**

NAME KEITH GOMES, CHIEF OPERATING OFFICER		TELEPHONE WITH AREA CODE (816) 801-6710	
ADDRESS (MAILING) 10220 N. AMBASSADOR DRIVE, PO BOX 909700		CITY KANSAS CITY	FAX (816) 801-6711
		STATE MO	ZIP CODE 64153

**5. OPERATOR**

NAME MIKE DALTON		CERTIFICATE NUMBER 7622-A	TELEPHONE WITH AREA CODE (417) 235-9007
ADDRESS (MAILING) 49 NORTH EISENHOWER		CITY MONETT	FAX (417) 235-9007
		STATE MO	ZIP CODE 65708

**6. FACILITY CONTACT**

NAME ROBERT HUFFMAN		TITLE PLANT MANAGER	TELEPHONE WITH AREA CODE (417) 235-3173
			FAX (417) 235-0412

**7. ADDITIONAL FACILITY INFORMATION**

7.1 Legal Description of Outfalls. (Attach additional sheets if necessary.) N/A Wastewater is discharged to the city of Monett sanitary sewer system.

001 \_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4 Sec \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ County \_\_\_\_\_  
 UTM Coordinates Easting (X): \_\_\_\_\_ Northing (Y): \_\_\_\_\_  
*For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)*

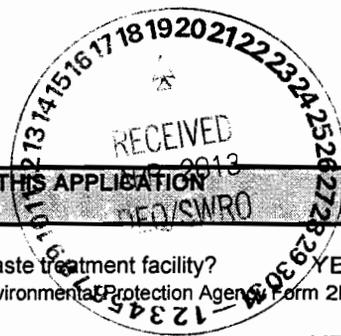
002 \_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4 Sec \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ County \_\_\_\_\_  
 UTM Coordinates Easting (X): \_\_\_\_\_ Northing (Y): \_\_\_\_\_

003 \_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4 Sec \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ County \_\_\_\_\_  
 UTM Coordinates Easting (X): \_\_\_\_\_ Northing (Y): \_\_\_\_\_

004 \_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4 Sec \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ County \_\_\_\_\_  
 UTM Coordinates Easting (X): \_\_\_\_\_ Northing (Y): \_\_\_\_\_

7.2 Primary Standard Industrial Classification (SIC) and Facility North American Industrial Classification System (NAICS) Codes.

001 - SIC 2022 \_\_\_\_\_ and NAICS 311513 \_\_\_\_\_ 002 - SIC \_\_\_\_\_ and NAICS \_\_\_\_\_  
 003 - SIC \_\_\_\_\_ and NAICS \_\_\_\_\_ 004 - SIC \_\_\_\_\_ and NAICS \_\_\_\_\_



**8. ADDITIONAL FORMS AND MAPS NECESSARY TO COMPLETE THIS APPLICATION**  
 (Complete all forms that are applicable.)

- A. Is your facility a manufacturing, commercial, mining or silviculture waste treatment facility?  
 If yes, complete Form C (unless storm water only, then complete U.S. Environmental Protection Agency Form 2F per Item C below). YES  NO
- B. Is your facility considered a "Primary Industry" under EPA guidelines:  
 If yes, complete Forms C and D. YES  NO
- C. Is application for storm water discharges only?  
 If yes, complete EPA Form 2F. YES  NO
- D. Attach a map showing all outfalls and the receiving stream at 1" = 2,000' scale.
- E. Is wastewater land applied? If yes, complete Form I. YES  NO
- F. Is sludge, biosolids, ash or residuals generated, treated, stored or land applied?  
 If yes, complete Form R. YES  NO

**9. DOWNSTREAM LANDOWNER(S)** Attach additional sheets as necessary. See Instructions.  
 (PLEASE SHOW LOCATION ON MAP. SEE 8.D ABOVE)

NAME  
 N/A No outfalls. All wastewater is discharged to the city of Monett sanitary sewer system.

ADDRESS	CITY	STATE	ZIP CODE
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10. I certify that I am familiar with the information contained in the application, that to the best of my knowledge and belief such information is true, complete and accurate, and if granted this permit, I agree to abide by the Missouri Clean Water Law and all rules, regulations, orders and decisions, subject to any legitimate appeal available to applicant under the Missouri Clean Water Law to the Missouri Clean Water Commission.

NAME AND OFFICIAL TITLE (TYPE OR PRINT) ROBERT HUFFMAN, PLANT MANAGER	TELEPHONE WITH AREA CODE (417) 235-3173
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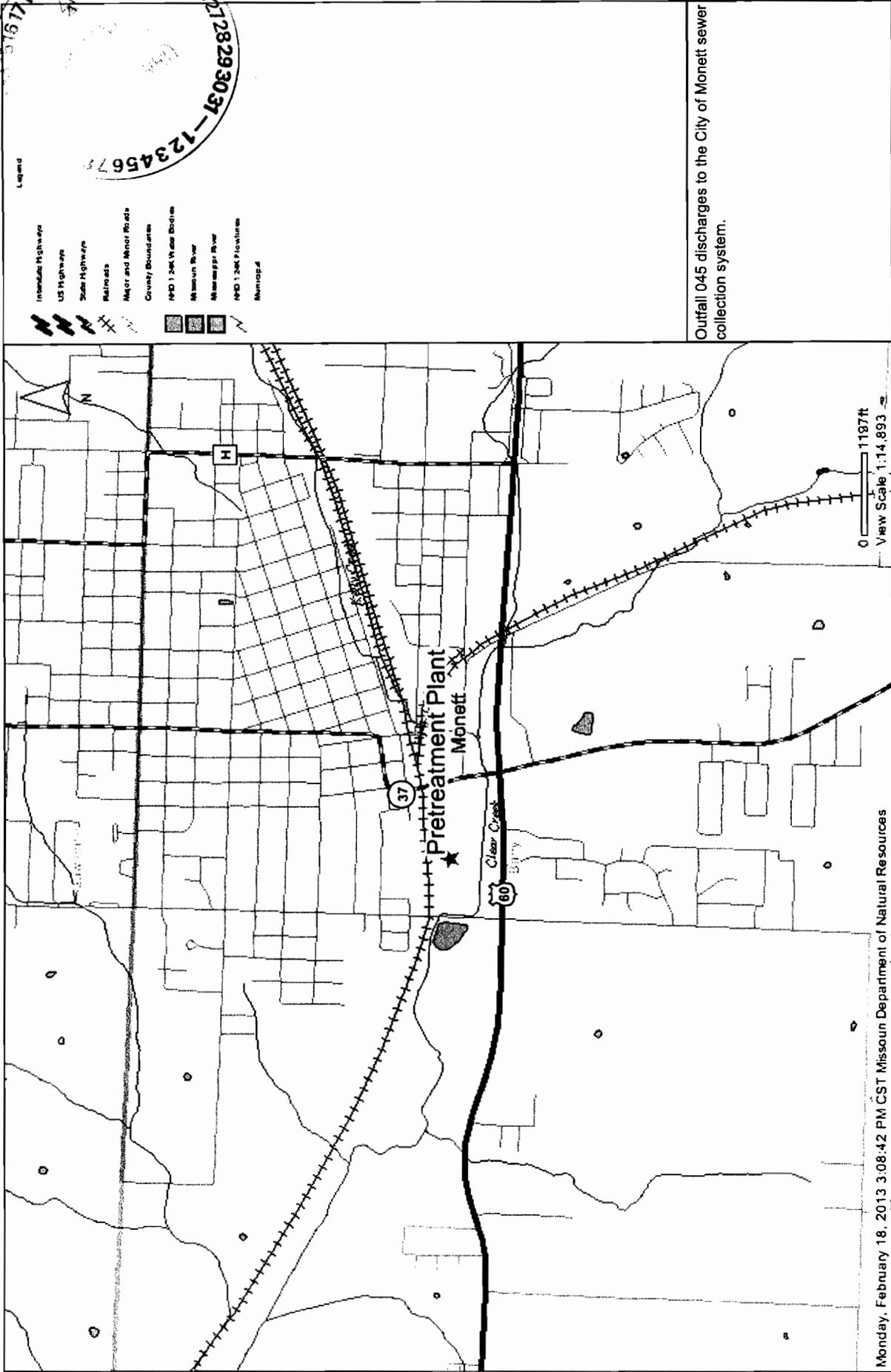
SIGNATURE 	DATE SIGNED 4/15/2013
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MO 780-1479 (01-09)

**BEFORE MAILING, PLEASE ENSURE ALL SECTIONS ARE COMPLETED AND ADDITIONAL FORMS, IF APPLICABLE, ARE INCLUDED.**  
 Submittal of an incomplete application may result in the application being returned.

- HAVE YOU INCLUDED:
- Appropriate Fees?
  - Map at 1" = 2000' scale?
  - Signature?
  - Form C, if applicable?
  - Form D, if applicable?
  - Form 2F, if applicable?
  - Form I (Irrigation), if applicable?
  - Form R (Sludge), if applicable?

# Dairy Farmers of America - Pretreatment Plant



Outfall 045 discharges to the City of Monett sewer collection system.



Missouri  
Department of  
Natural Resources

Disclaimer: Although this map has been compiled by the Missouri Department of Natural Resources, no warranty, expressed or implied, is made by the department as to the accuracy of the data and related materials. The act of distribution shall not constitute any such warranty, and no responsibility is assumed by the department in the use of these data or related materials.

**INSTRUCTIONS FOR COMPLETING FORM A  
APPLICATION FOR CONSTRUCTION OR OPERATING PERMIT**

1. Check which option is applicable. **Do not check more than one item.** Construction and operating permit refer to permits issued by the Department of Natural Resources' Water Protection Program, Water Pollution Control Branch. Effective Sept. 1, 2008, a facility will be required to use *MISSOURI'S ANTI-DEGRADATION RULE AND IMPLEMENTATION PROCEDURE*. For more information, this document can be reviewed at [www.dnr.mo.gov/env/wpp/docs/aip-cwc-app-050708.pdf](http://www.dnr.mo.gov/env/wpp/docs/aip-cwc-app-050708.pdf). This procedure will be applicable to new and expanded wastewater facilities and requires the proposed discharge to a water body to undergo a level of Antidegradation Review, which documents that the use of a water body's available assimilative capacity is justified.

- 1.1 An operating permit and antidegradation review public notice requires a Water Quality/Antidegradation Review Sheet to be submitted with the application (No fee required).

**CONSTRUCTION PERMIT FEES**

- A. \$750 for a sewage treatment facility with a design flow of less than 500,000 gallons per day.  
B. \$2,200 for a sewage treatment facility with a design flow of 500,000 gallons per day or more.  
Different application and construction fees are applicable if only sewer and/or lift stations are to be constructed.

**OPERATING PERMIT FEES**

**If the application is for a site-specific permit re-issuance, send no fees..** You will be invoiced separately by the department.

Discharges covered by section 644.052.4 RSMo. (Primary or Categorical Facilities)

- \$3,500 for a design flow under 1 mgd  
\$5,000 for a design flow of 1 mgd or more

- A. Discharges covered by section 644.052.5 RSMo. (Secondary or Non-Categorical Facilities).

- \$1,500 for a design flow under 1 million gallons per day (mpg)  
\$2,500 for a design flow of 1 mgd or more

**SITE-SPECIFIC STORM WATER DISCHARGE FEES**

- A. \$1,350 for a design flow under 1 mgd.  
B. \$2,350 for a design flow of 1 mgd or more.

OPERATING PERMIT MODIFICATIONS, including transfers, are subject to the following fees:

- A. Municipals - \$200 each.  
B. All others - 25 percent of annual fee.

Note: Facility name and address changes where owner, operator and continuing authority remain the same are not considered transfers.

Incomplete permit applications and/or related engineering documents will be returned by the department if they are not completed in the time frame established in a comment letter from the department to the owner. Permit fees for returned applications shall be forfeited. Permit fees for applications being processed by the department that are withdrawn by the applicant shall be forfeited.



2. Facility - Provide the name by which this facility is known locally. Example: Southwest Sewage Treatment Plant, Country Club Mobile Home Park, etc. Also include the street address or location of the facility. If the facility lacks a street name or route number, give the names of the closest intersection, highway, county road, etc.
3. Owner - Provide the legal name and address of owner.
- 3.1 Prior to submitting a permit to public notice, the department shall provide the permit applicant 10 days to review the draft permit for nonsubstantive drafting errors. In the interest of expediting permit issuance, permit applicants may waive the opportunity to review draft permits prior to public notice. Check YES to review the draft permit prior to public notice. Check NO to waive the process and expedite the permit.
4. Continuing Authority - Permanent organization that will serve as the continuing authority for the operation, maintenance and modernization of the facility. The regulatory requirement regarding continuing authority is available at [www.sos.mo.gov/adrules/csr/current/10csr/10c20-6a.pdf](http://www.sos.mo.gov/adrules/csr/current/10csr/10c20-6a.pdf) or contact the appropriate Department of Natural Resources Regional Office.
5. Operator - Provide the name, certificate number and telephone number of the person operating the facility.
6. Provide the name, title and work telephone number of a person who is thoroughly familiar with the operation of the facility and with the facts reported in this application and who can be contacted by the department, if necessary.
- 7.1 An outfall is the point at which wastewater is discharged. Outfalls should be given in terms of the legal description of the facility. Global Positioning System, or GPS, is a satellite-based navigation system. The department prefers that a GPS receiver is used at the outfall pipe and the displayed coordinates submitted. If access to a GPS receiver is not available, please use a mapping system to approximate the coordinates; the department's mapping system is available at [www.dnr.mo.gov/internetmapviewer/](http://www.dnr.mo.gov/internetmapviewer/).
- 7.2 List only your primary Standard Industrial Classification, or SIC, and North American Industry Classification System code for each outfall. The SIC system was devised by the U.S. Office of Management and Budget to cover all economic activities. To find the correct SIC code, an applicant may check his or her unemployment insurance forms or contact the Missouri Division of Employment Security, 573-751-3215. The primary SIC code is that of the operation that generates the most revenue. If this information is not available, the number of employees or, secondly, production rate may be used to determine your SIC code. Additional information is on the Web for Standard Industrial Codes at [www.osha.gov/pls/imis/sicsearch.html](http://www.osha.gov/pls/imis/sicsearch.html) and for the North American Industry Classification System at [www.census.gov/naics](http://www.census.gov/naics) or contact the appropriate Department of Natural Resources Regional Office.

**INSTRUCTIONS FOR COMPLETING FORM A  
APPLICATION FOR CONSTRUCTION OR OPERATING PERMIT  
(CONTINUED)**

8. If you answer yes to A, B, C, D, E or F, then you must complete and file the supplementary form(s) indicated. A U.S. Geological Survey 1" = 2,000' scale map must be submitted with the permit application showing all outfalls, the receiving stream and the location of the downstream property owners. This type of map is available on the Web at [www.dnr.mo.gov/internetmapviewer/](http://www.dnr.mo.gov/internetmapviewer/) or from the Missouri Department of Natural Resources' Division of Geology and Land Survey in Rolla at 573-368-2125.
9. Please provide the name and address of the first downstream landowner, different from that of the permitted facility, through whose property the discharge will flow. Also, please indicate the location on the map. For discharges that leave the permitted facility and flow under a road or highway, or along the right-of-way, the downstream property owner is the landowner that the discharge flows to after leaving the right-of-way. For no discharge facilities, provide this information for the location where discharge would flow if there was one. For land application sites, include the owners of the land application sites and all adjacent landowners.
10. **Signature - All applications must be signed as follows and the signature must be original:**
  - A. For a corporation, by an officer having responsibility for the overall operation of the regulated facility or activity or for environmental matters.
  - B. For a partnership or sole proprietorship, by a general partner or the proprietor.
  - C. For a municipal, state, federal or other public facility, by either a principal executive officer or by an individual having overall responsibility for environmental matters at the facility.

This completed form, along with the applicable permit fees, should be submitted to the appropriate Regional Office. Submittal of an incomplete application may result in the application being returned. A map of the department's regional offices with addresses and phone numbers can be viewed on the Web at [www.dnr.mo.gov/regions/ro-map.pdf](http://www.dnr.mo.gov/regions/ro-map.pdf). If there are any questions concerning this form, contact the appropriate Regional Office or the Department of Natural Resources' Water Protection Program, Water Pollution Control Branch, Permits and Engineering Section at 573-751-6825.

MO 780-1479 (01-09)





MISSOURI DEPARTMENT OF NATURAL RESOURCES  
 WATER PROTECTION PROGRAM, WATER POLLUTION BRANCH  
**FORM C – APPLICATION FOR DISCHARGE PERMIT –**  
**MANUFACTURING, COMMERCIAL, MINING,**  
**SILVICULTURE OPERATIONS, PROCESS & STORM WATER**

FOR AGENCY USE ONLY	
CHECK NO.	
DATE RECEIVED	FEE SUBMITTED

**TE: DO NOT ATTEMPT TO COMPLETE THIS FORM BEFORE READING THE ACCOMPANYING INSTRUCTIONS**

1.00 NAME OF FACILITY  
 DAIRY FARMERS OF AMERICA MONETT PRETREATMENT PLANT

1.10 THIS FACILITY IS NOW IN OPERATION UNDER MISSOURI OPERATING PERMIT NUMBER  
 MO-0128241

1.20 THIS IS A NEW FACILITY AND WAS CONSTRUCTED UNDER MISSOURI CONSTRUCTION PERMIT NUMBER (COMPLETE ONLY IF THIS FACILITY DOES NOT HAVE AN OPERATING PERMIT).  
 N/A

2.00 LIST THE STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODES APPLICABLE TO YOUR FACILITY (FOUR DIGIT CODE)

A. FIRST 2022 - Natural Cheese B. SECOND 2023 - Condensed and Evaporated Dairy Products

C. THIRD \_\_\_\_\_ D. FOURTH \_\_\_\_\_

2.10 FOR EACH OUTFALL GIVE THE LEGAL DESCRIPTION.

OUTFALL NUMBER (LIST) \_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4 SEC \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ COUNTY \_\_\_\_\_

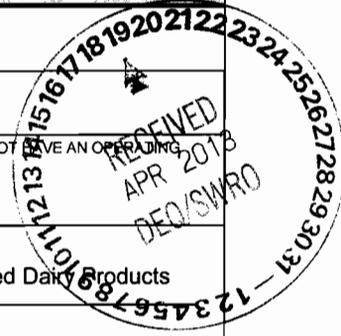
N/A All wastewater is discharged to the City of Monett's collection system.

2.20 FOR EACH OUTFALL LIST THE NAME OF THE RECEIVING WATER

OUTFALL NUMBER (LIST)	RECEIVING WATER
N/A	

2.30 BRIEFLY DESCRIBE THE NATURE OF YOUR BUSINESS

Dairy Processing - Cow's milk is processed into stirred curd cheddar cheese, condensed whey, whey protein concentrate, condensed permeate (lactose) and whey cream.

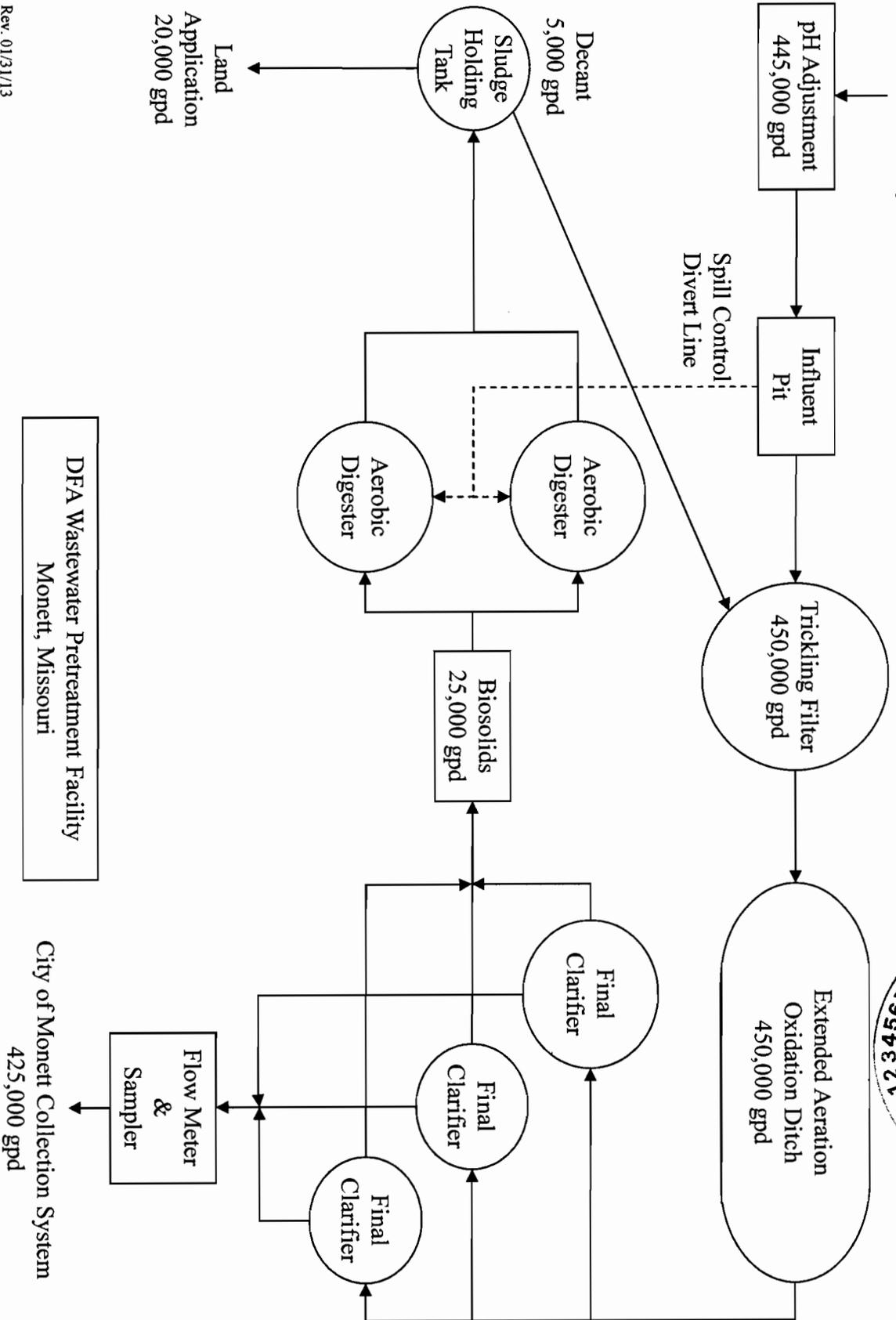


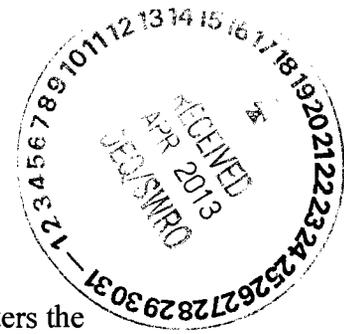




2.40 A.

DFA Production Facility





**2.40 B. (3a)**

**Process Description:**

The wastewater from the DFA Facility is pH adjusted with caustic before it enters the wastewater facility. The wastewater is treated first with a high rate Trickling Filter then with an Extended Aeration Activated Sludge Oxidation Ditch. From the Oxidation Ditch, the wastewater goes through one of three final clarifiers and then is measured for flow and sampled by an automatic sampler before being discharged to the City of Monett's collection system. The wastewater is further treated by the City of Monett.

Biosolids from the Oxidation Ditch are pumped to an Aerobic Digester. From there the biosolids are pumped to a Sludge Holding Tank, where decanting is done before being pumped to sludge trucks and land applied on local farmland.

Trickling Filter: 16 ft high, 55 ft diameter, Flow rate: 450,000 gpd

Oxidation Ditch: 1.3 MG, Flow rate: 450,000 gpd, Retention time: 2.9 days

Final Clarifiers: 440,000 gallons total: 450,000 gpd, Retention time: .98 days

Aerobic Digesters: 231,000 gallons each, Flow rate: 25,000 gpd, Retention time: 9.2 days

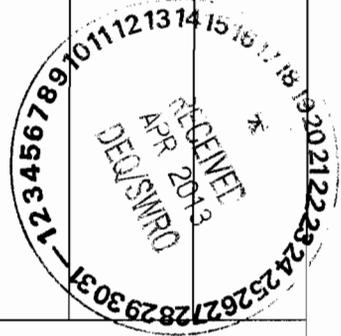
Sludge Holding Tank: 66,000 gallons, Flow: 25,000 gpd, Retention time: 2.6 days

**2.40 CONTINUED**

C. EXCEPT FOR STORM RUNOFF, LEAKS OR SPILLS, ARE ANY OF THE DISCHARGES DESCRIBED IN ITEMS A OR B INTERMITTENT OR SEASONAL?

YES (COMPLETE THE FOLLOWING TABLE)       NO (GO TO SECTION 2.50)

1. OUTFALL NUMBER (list)	2. OPERATION(S) CONTRIBUTING FLOW (list)	3. FREQUENCY		4. FLOW				C. DURATION (in days)
		A. DAYS PER WEEK (specify average)	B. MONTHS PER YEAR (specify average)	A. FLOW RATE (in mgd)		B. TOTAL VOLUME (specify with units)		
				1. LONG TERM AVERAGE	2. MAXIMUM DAILY	4. LONG TERM DAILY	3. MAXIMUM AVERAGE	



**2.50 MAXIMUM PRODUCTION**

A. DOES AN EFFLUENT GUIDELINE LIMITATION PROMULGATED BY EPA UNDER SECTION 304 OF THE CLEAN WATER ACT APPLY TO YOUR FACILITY?

YES (COMPLETE B.)       NO (GO TO SECTION 2.60)

B. ARE THE LIMITATIONS IN THE APPLICABLE EFFLUENT GUIDELINES EXPRESSED IN TERMS OF PRODUCTION (OF OTHER MEASURE OF OPERATION)?

YES (COMPLETE c.)       NO (GO TO SECTION 2.60)

C. IF YOU ANSWERED "YES" TO B. LIST THE QUANTITY THAT REPRESENTS AN ACTUAL MEASUREMENT OF YOUR MAXIMUM LEVEL OF PRODUCTION, EXPRESSED IN THE TERMS AND UNITS USED IN THE APPLICABLE EFFLUENT GUIDELINE AND INDICATE THE AFFECTED OUTFALLS.

1. MAXIMUM QUANTITY			2. AFFECTED OUTFALLS (list outfall numbers)
A. QUANTITY PER DAY	B. UNITS OF MEASURE	C. OPERATION, PRODUCT, MATERIAL, ETC. (specify)	

**2.60 IMPROVEMENTS**

A. ARE YOU NOW REQUIRED BY ANY FEDERAL, STATE OR LOCAL AUTHORITY TO MEET, ANY IMPLEMENTATION SCHEDULE FOR THE CONSTRUCTION, UPGRADING OR OPERATION OF WASTEWATER TREATMENT EQUIPMENT OR PRACTICES OR ANY OTHER ENVIRONMENTAL PROGRAMS THAT MAY AFFECT THE DISCHARGES DESCRIBED IN THIS APPLICATION? THIS INCLUDES, BUT IS NOT LIMITED TO, PERMIT CONDITIONS, ADMINISTRATIVE OR ENFORCEMENT ORDERS, ENFORCEMENT COMPLIANCE SCHEDULE LETTERS, STIPULATIONS, COURT ORDERS AND GRANT OR LOAN CONDITIONS.

YES (COMPLETE THE FOLLOWING TABLE)       NO (GO TO 3.00)

1. IDENTIFICATION OF CONDITION AGREEMENT, ETC.	2. AFFECTED OUTFALLS		3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE	
				A. REQUIRED	B. PROJECTED

B. OPTIONAL: YOU MAY ATTACH ADDITIONAL SHEETS DESCRIBING ANY ADDITIONAL WATER POLLUTION CONTROL PROGRAMS (OR OTHER ENVIRONMENTAL PROJECTS THAT MAY AFFECT YOUR DISCHARGES) YOU NOW HAVE UNDER WAY OR ARE YOU PLANNING. INDICATE WHETHER EACH PROGRAM IS NOW UNDER WAY OR PLANNED, AND INDICATE YOUR ACTUAL OR PLANNED SCHEDULES FOR CONSTRUCTION.

MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED.



3.10 BIOLOGICAL TOXICITY TESTING DATA

DO YOU HAVE ANY KNOWLEDGE OR REASON TO BELIEVE THAT ANY BIOLOGICAL TEST FOR ACUTE OR CHRONIC TOXICITY HAS BEEN MADE ON ANY OF YOUR DISCHARGES OR ON RECEIVING WATER IN RELATION TO YOUR DISCHARGE WITHIN THE LAST THREE YEARS?

YES (IDENTIFY THE TEST(S) AND DESCRIBE THEIR PURPOSES BELOW.)  NO (GO TO 3.20)

N/A All wastewater is discharged to the City of Monett collection system.



3.20 CONTRACT ANALYSIS INFORMATION

WERE ANY OF THE ANALYSES REPORTED PERFORMED BY A CONTRACT LABORATORY OR CONSULTING FIRM?

YES (LIST THE NAME, ADDRESS AND TELEPHONE NUMBER OF AND POLLUTANTS ANALYZED BY EACH SUCH LABORATORY OR FIRM BELOW.)  NO (GO TO 3.30)

A. NAME	B. ADDRESS	C. TELEPHONE (area code and number)	D. POLLUTANTS ANALYZED (list)

3.30 CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

NAME AND OFFICIAL TITLE (TYPE OR PRINT) Robert Huffman - Plant Manager, DFA	TELEPHONE NUMBER WITH AREA CODE (417) 235-3173
SIGNATURE (SEE INSTRUCTIONS) 	DATE SIGNED 4/15/2013

PLEASE PRINT OR TYPE. You may report some or all of this information on separate sheet instead of completing these pages.  
 (Use the same format)  
 SEE INSTRUCTIONS

FORM C  
 TABLE 1 FOR 3.00 ITEM A AND B

INTAKE AND EFFLUENT CHARACTERISTICS

1. POLLUTANT	2. EFFLUENT		3. UNITS (specify if blank)		4. INTAKE (optional)		B. NO. OF ANALYSES
	B. MAXIMUM 30 DAY VALUE (if available)		A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		
	A. MAXIMUM DAILY VALUE	(1) CONCENTRATION			(2) MASS	(1) CONCENTRATION	
A. Biochemical Oxygen Demand (BOD)							
B. Chemical Oxygen Demand (COD)							
C. Total organic Carbon (TOC)							
D. Total Suspended Solids (TSS)							
E. Ammonia (as N)							
F. Flow	VALUE	VALUE			VALUE		
G. Temperature (winter)	VALUE	VALUE			VALUE	°C	
H. Temperature (summer)	VALUE	VALUE			VALUE	°C	
I. pH	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM		STANDARD UNITS	

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT				4. UNITS				5. INTAKE (optional)		B. NO. OF ANALYSES	
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE			
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			(1) CONCENTRATION	(2) MASS		
A. Bromide (24959-67-9)														
B. Chlorine Total Residual														
C. Color														
D. Fecal Coliform														
E. Fluoride (16984-48-6)														
F. Nitrate-Nitrate (as N)														

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2-a for any pollutant, you must provide the results for at least one analysis for that pollutant. Complete one table for each outfall. See the instructions for additional details and requirements.



N/A All wastewater is discharged to the City of Monett's collection system. (No outfall)

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT						4. UNITS			5. INTAKE (optional)		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE (if available)		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS						
G. Nitrogen Total Organic (as N)														
H. Oil and Grease														
I. Phosphorus (as P) Total (7723-14-0)														
J. Sulfate (as SO <sup>4</sup> ) (14808-79-8)														
K. Sulfide (as S)														
L. Sulfite (as SO <sup>3</sup> ) (14265-45-3)														
M. Surfactants														
N. Aluminum Total (7429-90-6)														
O. Barium Total (7440-39-3)														
P. Boron Total (7440-42-8)														
Q. Cobalt Total (7440-48-4)														
R. Iron Total (7439-89-6)														
S. Magnesium Total (7439-95-4)														
T. Molybdenum Total (7439-98-7)														
U. Manganese Total (7439-96-5)														
V. Tin Total (7440-31-5)														
W. Titanium Total (7440-32-6)														
MO 780-1514 (06-12)														



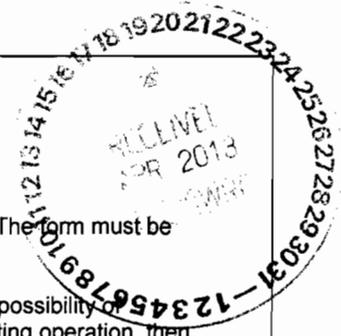
N/A All wastewater is discharged to the City of Monett's collection system. (No outfall)

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT						4. UNITS		5. INTAKE (optional)		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			(1) CONCENTRATION	(2) MASS	
<b>METALS, AND TOTAL PHENOLS</b>													
1M. Antimony, Total (7440-36-9)													
2M. Beryllium, Total (7440-41-7)													
3M. Magnesium, Total (7439-95-4)													
4M. Molybdenum, Total (7439-98-7)													
5M. Tin, Total (7440-31-5)													
6M. Titanium, Total (7440-32-6)													
7M. Mercury, Total (7439-97-6)													
8M. Selenium, Total (7782-49-2)													
9M. Thallium, Total (7440-28-0)													
10M. Phenols, Total													
<b>RADIOACTIVITY</b>													
(1) Alpha Total													
(2) Beta Total													
(3) Radium Total													
(4) Radium 226 Total													

N/A All wastewater is discharged to the City of Monett's collection system. (No outfall)



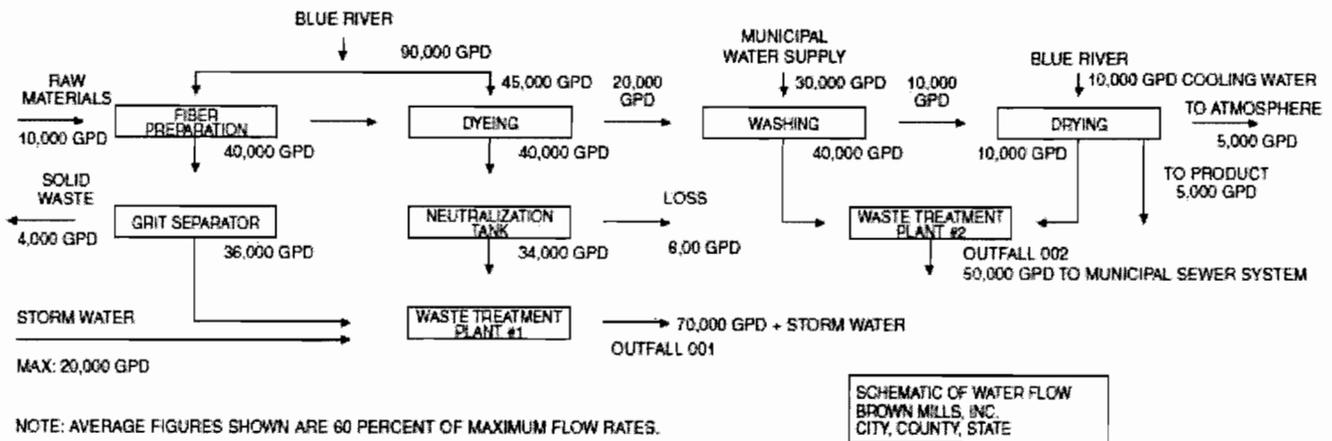
**INSTRUCTIONS FOR FILLING OUT APPLICATION FOR DISCHARGE  
PERMIT FORM C – MANUFACTURING, COMMERCIAL,  
MINING AND SILVICULTURE OPERATIONS.**



All blanks must be filled in when the application is submitted to the appropriate regional office (see map). The form must be signed as indicated.

This application is to be completed only for wastewater facilities with a discharge. Include any facility with possibility of discharge, even if normally there is no discharge. If this form is not adequate for you to describe your existing operation, then sufficient information should be attached so that an evaluation of the discharge can be made.

- 1.00 Name of Facility – By what title or name is this facility known locally?
- 1.10 and 1.20 Self-explanatory.
- 2.00 List in descending order of significance the four digit Standard Industrial Classification (SIC) codes that best describe your facility in terms of the principal products or services you produce or provide. Also, specify each classification in words.  
  
SIC code numbers are descriptions that may be found in the "Standard Industrial Classification Manual" prepared by the Executive Office of the President, Office of Management and Budget, that is available from the Government Printing Office, Washington, D.C. Use the current edition of the manual. If you have any questions concerning the appropriate SIC code for your facility, contact the Missouri Department of Natural Resources Regional office in your area (see map).
- 2.10 Point of discharge should be given in terms of the legal description of the waste treatment plant, location or sufficient information so that it may be located by the Missouri Clean Water Commission staff.
- 2.20 Receiving Water – the name of the stream to which the discharge is directed and any subsequent tributary until a continuous flowing stream is reached.
- 2.30 Self-explanatory.
- 2.40 A. The line drawing should show generally the route taken by water in your facility from intake to discharge. Show all operations contributing wastewater, including process and production areas, sanitary flows, cooling water and storm water runoff. You may group similar operations into a single unit labeled to correspond to the more detailed listing. The water balance should show average and maximum flows. Show all significant losses of water to products, atmosphere, discharge and public sewer systems. You should use actual measurements whenever available; otherwise, use your best estimate. An example of any acceptable line drawing appears below.



B. List all sources of wastewater to each outfall. Operations may be described in general terms (for example, "dye-making reactor" or a distillation tower"). You may estimate the flow contributed by each source if no data is available, and for storm water, you may use any reasonable measure of duration, volume or frequency. For each treatment unit, indicate its size, flow rate and retention time, and describe the ultimate disposal of any solid or liquid wastes not discharged. Treatment units should be listed in order and you should select the proper code from Table A to fill in column 3B for each treatment unit. Insert "XX" into column 3B if no code corresponds to a treatment unit you list.

**TABLE A – CODES FOR TREATMENT UNITS**

**PHYSICAL TREATMENT PROCESSES**

1-A	.....Ammonia Stripping	1-M	.....Grit Removal
1-B	.....Dialysis	1-N	.....Microstraining
1-C	.....Diatomaceous Earth Filtration	1-O	.....Mixing
1-D	.....Distillation	1-P	.....Moving Bed Filters
1-E	.....Electrodialysis	1-Q	.....Multimedia Filtration
1-F	.....Evaporation	1-R	.....Rapid Sand Filtration
1-G	.....Flocculation	1-S	.....Reverse Osmosis (Hyperfiltration)
1-H	.....Flotation	1-T	.....Screening
1-I	.....Foam Fractionation	1-U	.....Sedimentation (Settling)
1-J	.....Freezing	1-V	.....Slow Sand Filtration
1-K	.....Gas-Phase Separation	1-W	.....Solvent Extraction
1-L	.....Grinding (Comminutors)	1-X	.....Sorption

**CHEMICAL TREATMENT PROCESSES**

2-A	.....Carbon Absorption	2-G	.....Disinfection (Ozone)
2-B	.....Chemical Oxidation	2-H	.....Disinfection (Other)
2-C	.....Chemical Precipitation	2-I	.....Electrochemical Treatment
2-D	.....Coagulation	2-J	.....Ion Exchange
2-E	.....Dechlorination	2-K	.....Neutralization
2-F	.....Disinfection (Chlorine)	2-L	.....Reduction

**BIOLOGICAL TREATMENT PROCESSES**

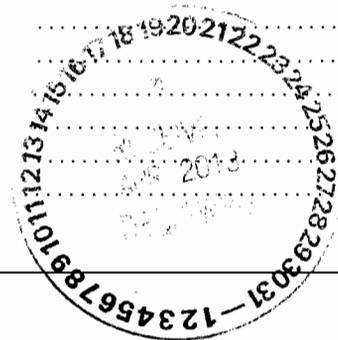
3-A	.....Activated Sludge	3-E	.....Pre-Aeration
3-B	.....Aerated Lagoons	3-F	.....Spray Irrigation/Land Application
3-C	.....Anaerobic Treatment	3-G	.....Stabilization Ponds
3-D	.....Nitrification-Denitrification	3-H	.....Trickling Filtration

**OTHER PROCESSES**

4-A	.....Discharge to Surface Water	4-C	.....Reuse/Recycle of Treated Effluent
4-B	.....Ocean Discharge Through Outfall	4-D	.....Underground Injection

**SLUDGE TREATMENT AND DISPOSAL PROCESSES**

5-A	.....Aerobic Digestion	5-M	.....Heat Drying
5-B	.....Anaerobic Digestion	5-N	.....Heat Treatment
5-C	.....Belt Filtration	5-O	.....Incineration
5-D	.....Centrifugation	5-P	.....Land Application
5-E	.....Chemical Conditioning	5-Q	.....Landfill
5-F	.....Chlorine Treatment	5-R	.....Pressure Filtration
5-G	.....Composting	5-S	.....Pyrolysis
5-H	.....Drying Beds	5-T	.....Sludge Lagoons
5-I	.....Elutriation	5-U	.....Vacuum Filtration
5-J	.....Flotation Thickening	5-V	.....Vibration
5-K	.....Freezing	5-W	.....Web Oxidation
5-L	.....Gravity Thickening		



2.40 C. A discharge is intermittent unless it occurs without interruption during the operating hours of the facility, except for infrequent shutdowns for maintenance, process changes or other similar activities. A discharge is seasonal if it occurs only during certain parts of the year. Fill in every applicable column in this item for each source of intermittent or seasonal discharges. Base your answers on actual data whenever available; otherwise, provide your best estimate. Report the highest daily value for flow rate and total volume in the "Maximum Daily" columns. Report the average of all daily values measures during days when discharge occurred within the last year in the "Long Term Average" columns.

2.50 A. All effluent guidelines promulgated by EPA appear in the Federal Register and are published annually in 40 CFR Subchapter N. A guideline applies to you if you have any operations contributing process wastewater in any subcategory covered by BPT, BCT, or BAT guidelines. If you are unsure whether you are covered by a promulgated effluent guideline, check with your Missouri Department of Natural Resources' Regional Office. You must check yes if an applicable effluent guideline has been promulgated, even if the guideline limitations are being contested in court. If you believe that a promulgated effluent guideline has been remanded for reconsideration by a court and does not apply to your operations, you may check no.

B. An effluent guideline is expressed in terms of production (or other measure of operation) if the limitations are expressed as mass of pollutant per operational parameter; for example, "pounds of BOD per cubic foot of logs from which bark is removed," or "pounds of TSS per megawatt hour of electrical energy consumed by smelting furnace." An example of a guideline not expressed in terms of a measure of operation is one which limits the concentration of pollutants.

C. This item must be completed only if you checked yes to item B. The production information requested here is necessary to apply effluent guidelines to your facility and you may not claim it as confidential. However, you do not have to indicate how the reported information was calculated.

Report quantities in the units of measurement used in the applicable effluent guideline. The figures provided must be a measure of actual operation over a one month period, such as the production for the highest month during the last twelve months, or the monthly average production for the highest year of the last five years, or other reasonable measure of actual operation, but may not be based on design capacity or on predictions of future increases in operation.

2.60 A. If you check yes to this question, complete all parts of the chart, or attach a copy of any previous submission you have made containing the same information.

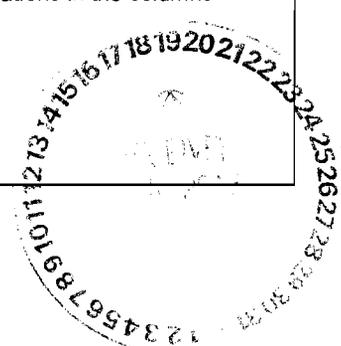
B. You are not required to submit a description of future pollution control projects if you do not wish to or if none is planned.

3.00 These items require you to collect and report data on the pollutants discharged from each of your outfalls. Each part of this item addresses a different set of pollutants and must be completed in accordance with the specific instructions for that part. The following general instructions apply to the entire item.

**GENERAL INSTRUCTIONS.** Part A requires you to report at least one analysis for each pollutant. Part B requires you to mark "X" in either the "Believe Present" column or the "Believe Absent" column (column 2A or 2B, Part B) based on you best estimate, and test for those which you believe to be present. Part C requires you to list any of a group of pollutants which you believe to be present, with a brief explanation of why you believe it to be present. (See specific instructions on the form and below Parts A through C).

Base your determination that a pollutant is present in or absent from your discharge on your knowledge of your raw materials, maintenance chemicals, intermediate and final products and byproducts, and any previous analyses known to you of your effluent or of any similar effluent. (For example, if you manufacture pesticides, you should expect those pesticides to be present in contaminated storm water runoff.) If you would expect a pollutant to be present solely as a result of its presence in your intake water, you must mark "Believe Present" but you are not required to analyze for that pollutant. Instead, mark an "X" in the "Intake" column.

**REPORTING.** All levels must be reported as a concentration and as total mass. You may report some or all of the required data by attaching separate sheets of paper. (Use the following abbreviations in the columns headed "Units" (column 3, Part A, and column 4, Part B).



**CONCENTRATION**

ppm ..... parts per million  
mg/L ..... milligrams per liter  
ppb ..... parts per billion  
ug/L ..... micrograms per liter

**MASS**

lbs ..... pounds  
ton ..... tons (English tons)  
mg ..... Milligrams  
g ..... grams  
kg ..... kilograms  
T ..... tonnes (metric tons)

If you measure only one daily value, complete only the "Maximum Daily Values" columns and insert "1" into the "number of analyses" columns (columns 2A and 2B, Part A, and columns 3A and 3D, Part B). The Missouri Department of Natural Resources may require you to conduct additional analyses to further characterize your discharges.

For composite samples, the daily value is the total mass or average concentration found in a complete sample taken over the operating hours of the facility during a 24 hour period; for grab samples, the daily value is the arithmetic or flow-weighted total mass or average concentration found in a series of at least four grab samples taken over the operating hours of the facility during a 24 hour period.

If you measure more than one daily value for a pollutant, determine the average of all values within the last year and report the concentration and mass under the "Long Term Average Values" columns (column 2C, Part A, and column 3C, Part B), and the total number of daily values under the "Number of Analyses" columns (column 2D, Part A, and column 3D, Part B). Also, determine the average of all daily values taken during each calendar month, and report the highest average of all daily values taken during each calendar month, and report the highest average under the "Maximum 30 Day Values" columns (column 2B, Part A, and column 3B, Part B).

**SAMPLING.** The collection of the samples for the reported analyses should be supervised by a person experienced in performing sampling of industrial wastewater. You may contact your Missouri Department of Natural Resources' Regional Office for detailed guidance on sampling techniques and for answers to specific questions. Any specific requirements contained in the applicable analytical methods should be followed for sample containers, sample preservation, holding times, the collection of duplicate samples, etc. The time when you sample should be representative of your normal operation, to the extent feasible, with all processes which contribute wastewater in normal operation and with your treatment system operating properly with no system upsets. Samples should be collected from the center of the flow channel, where turbulence is at a maximum, at a site specified in your present permit or at any site adequate for the collection of a representative sample.

Grab and composite samples are defined as follows:

**GRAB SAMPLE.** An individual sample of at least 100 milliliters collected at a randomly selected time over a period not exceeding 15 minutes.

**COMPOSITE SAMPLE.** A combination of at least eight sample aliquots of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over a 24 hour period. For volatile pollutants, aliquots must be combined in the laboratory immediately before analysis. The composite must be flow proportional; either the time interval between each aliquot or the volume of each aliquot must be proportional to either the stream flow at the time of sampling or the total stream flow since the collection of the previous aliquot. Aliquots may be collected manually or automatically.

**ANALYSIS.** You must use test methods promulgated in 40 CFR Part 136; however, if none has been promulgated for a particular pollutant, you may use any suitable method for measuring the level of the pollutant in your discharge provided that you submit a description of the method or a reference to a published method. Your description should include the sample holding times, preservation techniques and the quality control measures which you used.

If you have two or more substantially identical outfalls, you may request permission from the Missouri Department of Natural Resources to sample and analyze only one outfall and submit the results of the analysis for other substantially identical outfalls. If your request is granted by the Missouri Department of Natural Resources, on a separate sheet attached to the application form, identify which outfall you did test and describe why the outfalls which you did not test are substantially identical to the outfall which you did test.



**REPORTING OF INTAKE DATA.** You are not required to report data under the "Intake" columns unless you wish to demonstrate your eligibility for a "net" effluent limitation for one or more pollutants, that is, an effluent limitation adjusted by subtracting the average level of the pollutant(s) present in your intake water. National Pollutant Discharge Elimination System (NPDES) regulations allow net limitations only in certain circumstances. To demonstrate your eligibility, under the Intake columns report the average of the results of analyses on your intake water (if your water is treated before use, test the water after it is treated), and attach a separate sheet containing the following for each pollutant:

1. A statement that the intake water is drawn from the body of water into which the discharge is made. (Otherwise, you are not eligible for net limitations.)
2. A statement of the extent to which the level of the pollutant is reduced by treatment of your wastewater. (Your limitations will be adjusted only to the extent that the pollutant is not removed.)
3. When applicable, a demonstration of the extent to which the pollutants in the intake vary physically, chemically, or biologically from the pollutants contained in your discharge. For example, when the pollutant represents a class of compounds. Your limitations will be adjusted only to the extent that the intake pollutants do not vary from the discharged pollutants.

3.00 Part A must be completed by all applicants for all outfalls, including outfalls containing only noncontact cooling water or storm runoff. However, at your request, the Missouri Department of Natural Resources may waive the requirements to test for one or more of these pollutants, upon a determination that testing for the pollutant(s) is not appropriate for your effluent.

Use composite samples for all pollutants in this part, except use grab samples for pH and temperature. See discussion in instructions above for definitions of the columns in Part A. The "Long Term Average Values" column (column 2C) and "Maximum 30 Day Values" column (column 2B) are not compulsory but should be filled out if data is available.

3.00 Part B must be completed by all applicants for all outfalls, including outfalls containing only noncontact cooling water or storm runoff.

Use composite samples for all pollutants you analyze for in this part, except use grab samples for residual chlorine, oil and grease and fecal coliform. The Long Term Average Values column (column 3C) and Maximum 30 Day Values column (column 3B) are not compulsory but should be filled out if data is available.

3.00 List any pollutants in Table B that you believe to be present and explain why you believe them to be present in part C. No analysis is required, but you have analytical, you must report it.

**TABLE B – TOXIC POLLUTANTS AND HAZARDOUS SUBSTANCES REQUIRED TO BE IDENTIFIED BY APPLICANTS IF EXPECTED TO BE PRESENT**

TOXIC POLLUTANT	HAZARDOUS SUBSTANCES	HAZARDOUS SUBSTANCES
Asbestos	Dichlorvos	Nalad
	Diethylamine	Napthenic acid
<b>HAZARDOUS SUBSTANCES</b>	Dimethylamine	Nitrotoluene
Acetaldehyde	Dintrobenzene	Parathion
Allyl alcohol	Diquat	Phenolsulfonate
Allyl chloride	Disulfoton	Phosgene
Amyl acetate	Diuron	Propargite
Aniline	Epichlorohydrin	Propylene oxide
Benzonitrile	Ethion	Pyrethrins
Benzyl chloride	Ethylene diamine	Quinoline
Butyl acetate	Ethylene dibromide	Resorcinol
Butylamine	Formaldehyde	Strontium
Captan	Furfural	Strychnine
	Guthion	Styrene



**TABLE B – (continued)**

<b>HAZARDOUS SUBSTANCES</b>	<b>HAZARDOUS SUBSTANCES</b>	<b>HAZARDOUS SUBSTANCES</b>
Carbaryl	Isoprene	2, 4, 5-T (2,4,5-Trichloro- phenoxyacetic acid)
Carbofuran	Isopropanolamine	TDE (Tetrachlorodiphenyl ethane)
Carbon disulfide	Kelthane	2, 4, 5-TP (2-(2,4,5-Trichloro- phenoxy) propanoic acid)
Chlorpyrifos	Kepone	Trichlorofon
Coumaphos	Malathion	Triethanolamine
Cresol	Mercaptodimethur	Triethylamine
Crotonaldehyde	Methoxychlor	Uranium
2,4-D (2,4-Dichloro- Phenoxyacetic acid)	Methyl mercaptan	Vanadium
Diazinon	Methyl parathion	Vinyl acetate
Dicamba	Mevinphos	Xylene
Dichlobenil	Mexacarbate	Xylenol
2,2-Dichloropropionic acid	Monethyl amine	Zirconium

3.10 Self-explanatory. Additional information may be requested by the Missouri Department of Natural Resources.

3.20 Self-explanatory.

3.30 The Clean Water Act provides for severe penalties for submitting false information on this application form.

Section 309(c)(2) of the Clean Water Act provides that "Any person who knowingly makes any false statement, representation, or certification in any application . . . shall upon conviction, be punished by a fine of no more \$10,000 or by imprisonment for not more than six months, or both.

All applications must be signed as follows and the signature must be original.

- A. For a corporation, by an officer having responsibility for the overall operation of the regulated facility or activity or for environmental matters.
- B. For a partnership or sole proprietorship, by a general partner or the proprietor.
- C. For a municipal, state, federal or other public facility, by either a principal executive officer or by an individual having overall responsibility for environmental matters at the facility.





MISSOURI DEPARTMENT OF NATURAL RESOURCES  
 WATER PROTECTION PROGRAM, WATER POLLUTION BRANCH  
 (SEE MAP FOR APPROPRIATE REGIONAL OFFICE)  
**FORM R – PERMIT APPLICATION FOR LAND APPLICATION  
 OF INDUSTRIAL WASTEWATER BIOSOLIDS AND RESIDUALS**

**FOR AGENCY USE ONLY**

PERMIT NUMBER  
 MO -  
 DATE RECEIVED

**INSTRUCTIONS: FORMS A & C or F (CAFOs) (and D where applicable) must also be submitted for land application of industrial wastewater sludge biosolids or residuals. Submit FORMS E and G for land disturbance permit if construction areas total five acres or more.**

Attach **FORM I**, if wastewater will be land applied or irrigated.



**1.00 FACILITY INFORMATION**

1.10 Facility Name

DAIRY FARMERS OF AMERICA MONETT PRETREATMENT PLANT

1.20 Application for:  Construction Permit (attach Engineering report, Plans and Specifications per 10 CSR 20-8.020)  
 Operating Permit (if no construction permit, attach engineering documents)  
 Date Land Application System Began Operation: \_\_\_\_\_  
 Operating Permit Renewal

1.30 Months when the business or enterprise will operate or generate sludge or residuals:  
 12 months per year  Part of year (list Months): \_\_\_\_\_

1.40 List the Facility outfalls which will be applicable to the land application system from outfalls listed on Form A, C, D and F.  
 Outfall Nos. N/A Plant wastewater is discharged to City of Monett collection system.

**2.00 STORAGE BASINS**

2.10 Number of storage basins: 3 Type of basin:  Steel  Concrete  Fiberglass  Earthen  
 Earthen with membrane liner

2.20 Storage basin dimensions at inside top of berm (feet): Report freeboard as feet from top of berm to emergency spillway or overflow pipe. See Attached  
 (Complete Attachment A: Profile Sketch)  
 Basin #1: Length \_\_\_\_\_ Width \_\_\_\_\_ Depth \_\_\_\_\_ Freeboard \_\_\_\_\_ Berm Width \_\_\_\_\_ % Slope \_\_\_\_\_  
 Basin #2: Length \_\_\_\_\_ Width \_\_\_\_\_ Depth \_\_\_\_\_ Freeboard \_\_\_\_\_ Berm Width \_\_\_\_\_ % Slope \_\_\_\_\_

2.21 Storage basin volumes (gallons): Permanent volume means two foot water depth for seal protection, and any required treatment volume capacity. See Attached  
 Basin #1: Gallons: \_\_\_\_\_ Permanent Volume + \_\_\_\_\_ Storage = \_\_\_\_\_ Total volume (gallons)  
 Basin #2: Gallons: \_\_\_\_\_ Permanent Volume + \_\_\_\_\_ Storage = \_\_\_\_\_ Total volume (gallons)

2.30 Storage Basin operating levels (report as feet below emergency overflow level) See Attached  
 Basin #1: Maximum water level \_\_\_\_\_ ft. Minimum operating water level \_\_\_\_\_ ft.  
 Basin #2: Maximum water level \_\_\_\_\_ ft. Minimum operating water level \_\_\_\_\_ ft.

2.40 Storage Basin design storage capacity: (storage between minimum and maximum operating levels for 1-in10 year storm water flows.)  
 Basin #1: 8.25 days Basin #2: 8.25 days Basin #3: 2.3 days

2.50 Attach Water Balance Test results to verify earthen basin seal in accordance with 10 CSR 20-8.020(13) and (16), when required by the department.

2.60 Attach a sludge management plan for materials that are not land applied. N/A

2.70 Attach a closure plan for lagoons, storage basins and treatment units. N/A

**3.00 LAND APPLICATION SYSTEM**

3.10 Number of application sites 44 Total Available Acres 2121 Minimum & Maximum % field slopes 0-9%  
 Location: \_\_\_\_\_ ¼ \_\_\_\_\_ ¼ \_\_\_\_\_ ¼ \_\_\_\_\_ Sec. \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ County \_\_\_\_\_ Acres  
 Location: \_\_\_\_\_ ¼ \_\_\_\_\_ ¼ \_\_\_\_\_ ¼ \_\_\_\_\_ Sec. \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ County \_\_\_\_\_ Acres  
 Attach extra sheets as necessary. See Attached

3.12 Type of vegetation:  Grass hay  Pasture  Timber  Row crops  Other (describe) \_\_\_\_\_  
 Specific Crops and Yields/acre: \_\_\_\_\_ Goal: See Attached Actual for last five years: \_\_\_\_\_

3.20 Annual sludge production (gallons per year): 6,030,000 Actual UNKNOWN Design  
 (dry tons per year): 539 Actual UNKNOWN Design  
 Human Population Equivalent: 14,770 Actual UNKNOWN Design

3.21 Land Application rate per acre:  
 Design: 0.535 dry ton/year .11 dry ton/application 5 No. applications/year  
 Actual: 0.535 dry ton/year .11 dry ton/application 5 No. applications/year  
 Total amount land applied each year (total all sites) Design Unknown dry ton/year Actual 539 dry ton/year  
 Actual months used for land application:  Jan  Feb  Mar  Apr  May  Jun  Jul  Aug  Sep  
 Oct  Nov  Dec

3.22 Land Application Rate is based on:  
 Nutrient Management Plan (N&P)  PAN  Conservative  
 Hydraulic Loading  Limiting Pollutant (Specify) \_\_\_\_\_  
 Other (describe) \_\_\_\_\_

3.30 Equipment type:  Tank wagon  Tank truck  Subsurface injection  Slinger spreader  Dry spreader  
 Other (describe) \_\_\_\_\_  
 Equipment Capacity: 6000 Gallons (cubic feet) per hour 1600-1700 Total hours of operation per year

3.40 Public Use/Access Sites: If public use or access to land application site, describe pathogen treatment and site access restrictions. If human, animal, or organic wastes, refer to 40 CFR 503.32 for pathogen treatment methods. Attach extra sheets as necessary.  
N/A

3.50 Separation distance (in feet) from the outside edge of the biosolids application area to down gradient features:  
300 Permanent flowing stream 300 Losing Stream 300 Intermittent (wet weather) stream 300 Lake or pond  
50 Property boundary 150 Dwellings 300 Water supply well \_\_\_\_\_ Other (describe) \_\_\_\_\_

3.60 SOILS INFORMATION: Use information from the County Soil Survey, NRCS, or professional soil scientist.  
 NOTE: On-site soils classification by a professional soil scientist may be required by the department where appropriate.  
 Soil Series Name See Attached Depth of bedrock \_\_\_\_\_ Feet Depth to water table \_\_\_\_\_ Feet  
 Soil Infiltration rate in inches/hour (in/hr) for most restrictive layer within the following soil depth ranges:  
 \_\_\_\_\_ In/hr for 0-12 inch soil depth \_\_\_\_\_ In/hr for 12-24 inch soil depth \_\_\_\_\_ In/hr for 24-60 inch soil depth

3.70 Attach Nutrient Management Plan (NMP) including calculations for plant available nitrogen (PAN) and other nutrients, crop requirements, crop yields and other management factors. Include USDA/NRCS phosphorus recommendations.

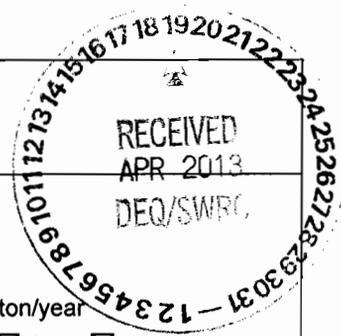
3.80 Geologic Investigation: None Date of most recent Geologic Report by Department's Division of Geology and Land Survey.

3.81 Ground Water Monitoring Wells: (Attach Groundwater Monitoring Plan when required by department)  
 NONE  EXISTING  PLANNED NUMBER: \_\_\_\_\_ Monitoring Wells \_\_\_\_\_ Lysimeters

3.90 Attach a current copy of the Operation and Maintenance (O&M) Plan for the land application system. Date of O&M Plan: N/A

3.91 Attach a site map showing topography, storage basins, land application sites, property boundary, streams, wells, roads, dwellings and other pertinent features.

3.92 Attach a facility sketch showing treatment units, storage basins, pipelines, application sites and other features.



**4.00 INDUSTRIAL PROCESS INFORMATION**

4.10 Brief description of treatment processes prior to land application and note any changes made in last five years. (Attach extra sheets as necessary.)  
SEE ATTACHED

4.11 Detailed description of industrial production processes. Also indicate any changes made in last five years. (attach extra sheets as necessary)  
SEE ATTACHED



4.20 List of raw materials, chemicals, additives, products, and by-products (Attach extra sheets as necessary)  
SEE ATTACHED

4.31 Attach following FORMS for wastewater to be land applied.  
 FORM C or F is required for all applicants. Use Form F for CAFOs.  
 FORM D is required for those industries listed in the Form D instructions or when required by the department.  
 Use actual testing results within last 12 months. For new operations use testing results from other similar operations or from published literature.

4.32 Are there any listed hazardous wastes in the material to be land applied:  YES  NO (If YES, attach testing results)

4.40 A. Are any Pollutants listed in 40 CFR 268.40 believed to be present in detectable concentrations:  YES  NO  
 B. Are any Pollutants listed in 10 CSR 20-7.031 believed to be present in detectable concentrations:  YES  NO  
 C. Are any Pollutants listed in EPA Process Design Manual for Land Treatment of Municipal Wastewater publication EPA-625/1-81-013, Table 4-5 and Table 4-16 believed present in detectable concentrations:  YES  NO  
 (Attach a copy of testing results for any pollutants that may be present in detectable concentrations.)

4.50 Environmental Assessment. Do any of the pollutants detected exceed the criteria for pollutant concentrations of limitations contained in the publications referenced in Section 4.40 of this form:  YES  NO  
 If YES, attach a copy of the Environmental Assessment as required in 10 CSR 20-8.020(3)(D).

**5.00 SOIL TESTING RESULTS:** Complete information for each pollutant listed and each land application site. Attach results of any other soil testing performed in the last 12 months. Soil sampling and testing should conform to University publication G9110, Sampling Your Soil for Testing; Soil Test Procedures for North Central Region (North Dakota Agricultural Experiment Bulletin 499-Revised); Methods of Soil Analysis, American Society of Agronomy, Inc.; Soil Testing and Plant Analysis, Soil Science Society of America, Inc.; EPA Methods; or other methods approved by the department. Attach extra sheets as necessary.

Total area sampled is 2121 acres. Each composite sample covers 6-200 acres. Each composite consists of 7 subsamples.  
 Sample depth:  0-6 inches  0-12 inches  Other (describe) \_\_\_\_\_ See Attached

Pollutant	Concentration (mg/kg or ppm)			Pounds/Acre	No. Composite Samples	Sample Period
	Minimum	Maximum	Average			
Organic Nitrogen as N						
Ammonia Nitrogen as N	0.88	426.89	11.71			December 2012
Nitrate Nitrogen as N	7.3	649.8	43.4			December 2012
Phosphorus as P (Bray 1P)	10.5	615.0	184.3			December 2012
Exchangeable Sodium %	0.5	35.0	12.1			December 2012
Organic Matter (percent)	2.3	6.6	3.6			December 2012
Cation Exchange Capacity	9.2	15.6	11.7			December 2012
pH (standard units)	4.5	6.6	5.6			December 2012

Other pollutants present in the material to be land applied: (Attach extra sheets as necessary)

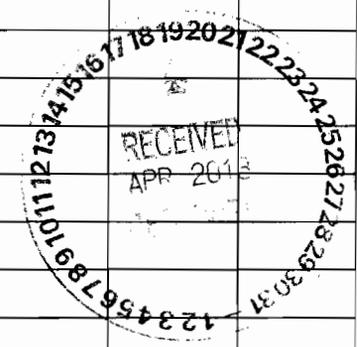

**6.00 LAND LIMITING CONSTITUENTS FOR LAND APPLICATION**

6.10 Metals of Concern for Land Application. Complete information for each pollutant listed.

Analysis results must be for "TOTAL METALS". (Do NOT use TCLP, dissolved, total recoverable or other extraction methods.

Include all test results for the last 5 years and a minimum of 4 separate samples.

Pollutant (total metals)	Concentration (mg/kg dry weight)			Design LBS/ Acre/Year	Type of Samples	Number Samples	Sample Location	Sample Period
	Minimum	Maximum	Average					
Aluminum	N/A							
Arsenic	N/A							
Beryllium	N/A							
Cadium	N/A							
Chromium	N/A							
Copper	N/A							
Fluoride	N/A							
Lead	N/A							
Manganese	N/A							
Mercury	N/A							
Molybdenum	N/A							
Nickel	N/A							
Selenium	N/A							
Silver	N/A							
Tin	N/A							
Zinc	N/A							

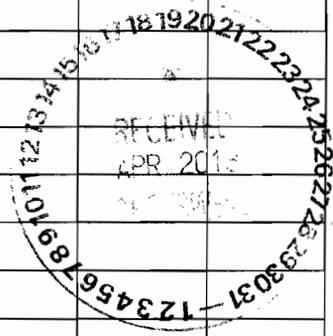


6.20 Major Pollutants of Concern for Land Application. Complete information for each pollutant listed. Include any other pollutants that are most limiting for determining land application rates. Attach extra sheets as necessary.

Organic Nitrogen as N	52,300	82,900	71,950	150	Cp.	4	Tank	2012
Ammonia Nitrogen as N	447	1,280	772.25		Cp.	4	Tank	2012
Nitrate Nitrogen as N	40	2,640	974.43		Cp.	4	Tank	2012
Total Nitrogen as N	52,600	83,600	72,675		Cp.	4	Tank	2012
Plant Available Nitrogen (PAN)	N/A							
Total Phosphorus as P	20,900	34,900	30,425		Cp.	4	Tank	2012
Boron	26.2	49.2	40.58		Cp.	4	Tank	2012
Chlorides	10,200	17,300	13,750		Cp.	2	Tank	10 & 12
Sodium	21,900	23,500	22,700		Cp.	2	Tank	10 & 12
COD			16,800		Cp.	1	Tank	2012
TPH			<80		Cp.	1	Tank	2012
Total Suspended Solids			16,500		Cp.	1	Tank	2012
Oil & Grease			<80		Cp.	1	Tank	2012
Sodium Absorption Ration (SAR)	N/A							
pH (standard units)	6.5	7.85	7.33		Cp.	4	Tank	2012

6.30 Other Limiting Pollutants for Land Application Rates. Specify any other pollutants that are most limiting for determining land application rates. Include any additional significant pollutants from Section 4 that is not already listed in Section 6.00. Attach extra sheets as necessary.

Pollutant	Concentration (mg/kg dry weight)			Design LBS/ Acre/Year	Type of Samples	Number Samples	Sample Location	Sample Period
	Minimum	Maximum	Average					
N/A								



6.40 Requirements for Public Use Sites. Complete this if land application onto public use or public access sites or if material will be distributed for general public use. Fecal Coliform, Salmonella and Enteric Virus must be tested if the biosolids include waste material from humans, animals, vegetables or organic matter.

Pollutant	Concentration (mg/kg dry weight)			Type of Samples	Number Samples	Sample Location	Sample Period
	Minimum	Maximum	Average				
Total Dioxin TEQ*							

\* Required Only for public access sites. TEQ = Toxicity Equivalents for CDD and CDF isomers per EPA Publication EPA/625/3-89/016 and EPA method 1613. Detection limits must be less than 1.0 ppt.

Fecal Coliform	N/A						
Salmonella	N/A						
Enteric Virus	N/A						
Other (specify)	N/A						

**7.00 CERTIFICATION**

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED IN THIS APPLICATION AND ALL ATTACHMENTS AND THAT BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THIS INFORMATION, I BELIEVE THAT THE INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE OR IMPRISONMENT.

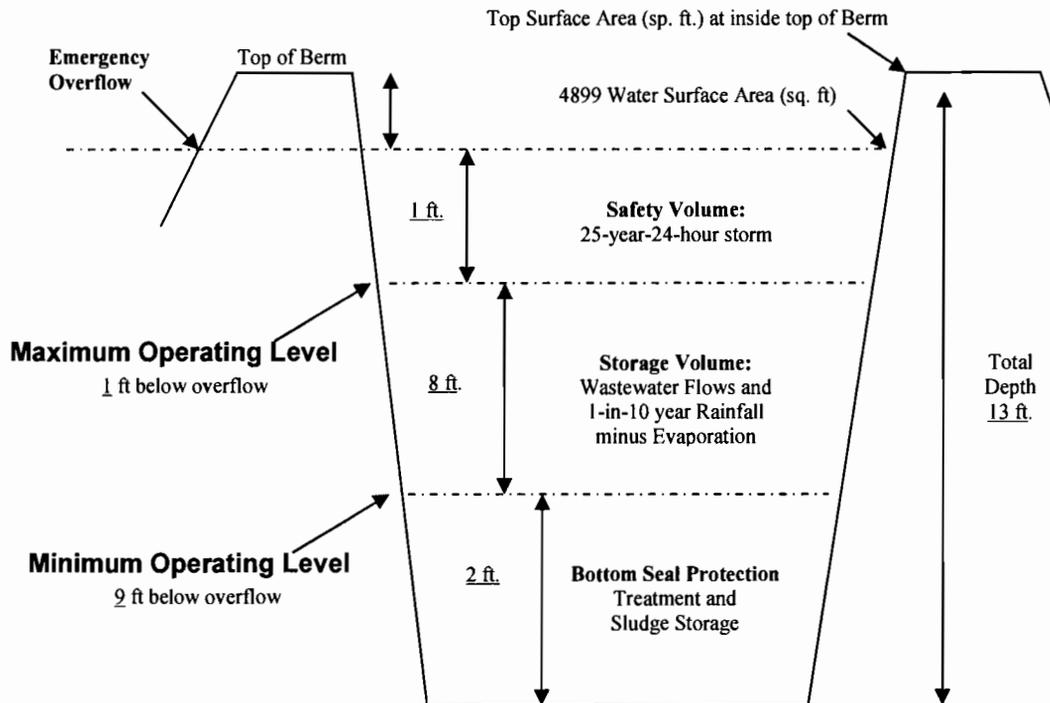
CONSULTING ENGINEER – Name, Official Title and Engineering Firm (TYPE OR PRINT) Mike Dalton, Plant Manager, ECOVATION, INC.	TELEPHONE NUMBER (area code and number) (585) 259-4298
SIGNATURE <i>Mike Dalton</i>	DATE SIGNED 4-15-2013
OWNER OR AUTHORIZED REPRESENTATIVE – Name and Official Title (TYPE OR PRINT) Robert Huffman, Plant Manager, DFA	TELEPHONE NUMBER (area code and number) (417) 235-3173
SIGNATURE <i>For Huffman</i>	DATE SIGNED 4/15/2013

**ATTACHMENT A**

(To be included with Form I and Form R)

**East and West Digester**

**Lagoon or Storage Basin  
PROFILE SKETCH**



**DEFINITION OF TERMS (REFER TO THE PROFILE SKETCH ABOVE).**

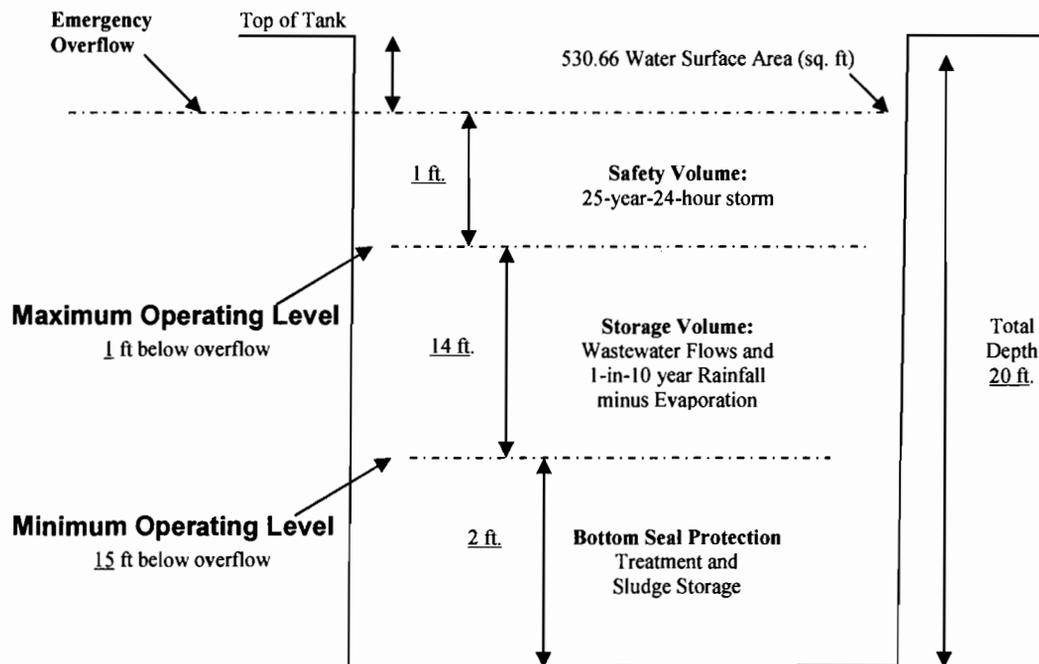
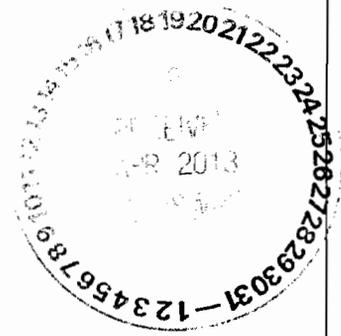
- a. Freeboard is depth from top of berm to emergency spillway (minimum 1 foot);
- b. Safety Volume is depth for 25-year, 24-hour storm (minimum of 1 foot);
- c. Maximum Operating Level is at bottom of the safety volume (minimum of 2 feet below top of berm).
- d. Minimum Operating Level is 2 feet above bottom of lagoon for seal protection per 10 CSR 20-8.  
The minimum operating level may be greater than 2 feet when additional treatment volume is included.
- e. Storage Volume and days storage are based on the volume between Minimum and Maximum Operating Levels.
- f. Total Depth is from top of berm to bottom of basin including freeboard.

**ATTACHMENT A**

(To be included with Form I and Form R)

**Holding Tank**

**Lagoon or Storage Basin  
PROFILE SKETCH**



**DEFINITION OF TERMS (REFER TO THE PROFILE SKETCH ABOVE).**

- g. Freeboard is depth from top of berm to emergency spillway (minimum 1 foot);
- h. Safety Volume is depth for 25-year, 24-hour storm (minimum of 1 foot);
- i. Maximum Operating Level is at bottom of the safety volume (minimum of 2 feet below top of berm).
- j. Minimum Operating Level is 2 feet above bottom of lagoon for seal protection per 10 CSR 20-8.  
The minimum operating level may be greater than 2 feet when additional treatment volume is included.
- k. Storage Volume and days storage are based on the volume between Minimum and Maximum Operating Levels.
- l. Total Depth is from top of berm to bottom of basin including freeboard.

## 2.20 Storage Basin Dimensions:

	<u>Length</u>	<u>Width</u>	<u>Depth</u>	<u>Freeboard</u>	<u>Berm Width</u>	<u>% Slope</u>
East Digester	79 ft.	79 ft.	11 ft.	2 ft.	4 ft.	1:2
West Digester	79 ft.	79 ft.	11 ft.	2 ft.	4 ft.	1:2

	<u>Diameter</u>	<u>Height</u>	<u>Freeboard</u>
Holding Tank	26 ft.	20 ft.	3 ft.

## 2.21 Storage Basin Volumes

	<u>Permanent Volume</u>	<u>Storage</u>	<u>Total Volume</u>
East Digester	18,326 gal	212,674 gal	231,000 gal
West Digester	18,326 gal	212,674 gal	231,000 gal
Holding Tank	0 gal	66,000 gal	66,000 gal

## 2.30 Storage Basin Operating Levels

	<u>Maximum Water Level</u>	<u>Minimum Water Level</u>
East Digester	10 ft.	2 ft.
West Digester	10 ft.	2 ft.
Holding Tank	17 ft.	2 ft.

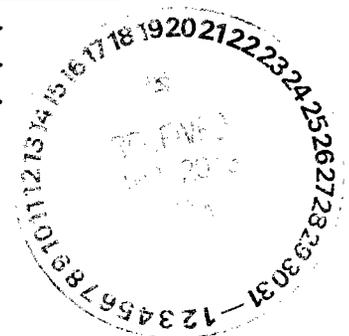
## 2.50 Water Balance Test Results:

N/A

## 3.10 Land Application Sites

*Outfalls 001 through 054 are renewal of existing permitted outfalls. Outfalls 004, 005, 039 and 043 were removed, no longer used. Outfalls 055 through 057 are new outfalls.*

<u>Outfall</u>	<u>Site</u>	<u>Description</u>	<u>Section, Township, Range</u>	<u>County</u>	<u>Acres</u>
001	15	SE1/4, W1/4	S12, T25N, R28W	Barry	80
002	17	SE1/4, NE1/4	S13, T25N, R28W	Barry	20
003	18	SE1/4, SE1/4	S12, T25N, R28W	Barry	6
006	46	SW1/4, NW1/4	S7, T25N, R27W	Barry	40
007	49	NW1/4, SE1/4, SE1/4 & SW1/4, NE1/4, NE1/4	S7, T25N, R27W	Barry	60
008	52	NW1/4, NW1/4, NW1/4	S8, T25N, R27W	Barry	24
013	84	NE1/4, NW1/4, NW1/4	S13, T25N, R28W	Barry	40
015	89	NW1/4, NW1/4	S7, T25N, R27W	Barry	55
016	96	NM1/4, S1/2 & SW1/4, N1/2	S18, T25N, R27W	Barry	14
017	97	NW1/4, S1/2, & SW1/4, N1/2	S18, T25N, R27W	Barry	12



<u>Outfall</u>	<u>Site</u>	<u>Description</u>	<u>Section, Township, Range</u>	<u>County</u>	<u>Acres</u>
018	98	SE1/4, SE1/4	S12, T25N, R28W	Barry	7
019	104	NE1/4, SE1/4	S13, T25N, R28W	Barry	7
020	107	NE1/4, SE1/4	S13, T25N, R28W	Barry	24
021	112	SE1/4, SE1/4	S12, T25N, R28W	Barry	20
023	117	SE1/4, SE1/4, SE1/4	S13, T25N, R28W	Barry	11
024	118	SE1/4, NE1/4	S13, T25N, R28W	Barry	14
025	119	NE1/4, SE1/4	S13, T25N, R28W	Barry	15
026	120	NW1/4, S1/2, & SW1/4, N1/2	S18, T25N, R27W	Barry	32
027	121	SW1/4, SW1/4, SW1/4	S7, T25N, R27W	Barry	30
028	123	NW1/4, S1/2, & SW1/4, N1/2	S18, T25N, R27W	Barry	32
030	126	NE1/4, NE1/4, NE1/4	S13, T25N, R28W	Barry	40
031	129	NW1/4, N1/2	S18, T25N, R27W	Barry	20
032	135	SE1/4, NE1/4	S13, T25N, R28W	Barry	28
033	138	SE1/4, SE1/4	S12, T25N, R28W	Barry	14
034	151	NW1/4, S1/2, & SW1/4, N1/2	S18, T25N, R27W	Barry	10
035	159	NW1/4, NE1/4, NE1/4	S11, T25N, R28W	Barry	9
036	163	NW1/4, S1/2, & SW1/4, N1/2	S18, T25N, R27W	Barry	10
037	178	SW1/4, NW1/4, NE1/4	S5, T25N, R27W	Barry	20
040	182	SW1/4, NE1/4, NE1/4, & SE1/4, NW1/4, NW1/4	S5, T25N, R27W	Barry	12
041	188	NW1/4, N1/2	S18, T25N, R27W	Barry	75
042	191	SE1/4, SW1/4, & NE1/4, SW1/4, & SW1/4, NE1/4	S11, T25N, R28W	Barry	160
044	196	SW1/4, SE1/4, W1/4	S5, T25N, R27W	Barry	20
045		S1/2, SW1/4, SW1/4	S36, T26N, R27W	Barry	
046	197	SW1/4, SE1/4, & SW1/4, NE1/4, S1/3, & SW1/4, SW1/4, E1/2, & SW1/4, NW1/4, SE1/4	S11, T25N, R28W	Barry	90
047	198	NW1/4, SW1/4	S7, T25N, R27W	Barry	40
048	199	SE1/4, S1/2 & SW1/4, E1/2	S16, T26W, R28W	Lawrence	40
049	200	NE1/4, N1/2, & NW1/4, NE1/4	S8, T25N, R27W	Barry	118
050	201	SE1/4, SE1/4	S5, T25N, R27W	Barry	30
051	202	S3/4, SE1/4 & W1/2, N1/4, SE1/4	S29, T25N, R28W	Barry	137
052	203	N1/2, NE1/4 & E3/4, S1/2, NE1/4	S32, T25N, R28W	Barry	138



<u>Outfall</u>	<u>Site</u>	<u>Description</u>	<u>Section, Township, Range</u>	<u>County</u>	<u>Acres</u>
053	204	SE1/4, NW1/4 & NE1/4, SW1/4 & S1/2, NE1/4	S9, T25N, R27W	Barry	168
054	205	SE1/4, NW1/4 & SW1/4, NE1/4 & N1/2, SW1/4 & NW1/4, SE1/4	S4, T25N, R28W	Barry	200
055*	206	NW1/4, NE1/4	S11, T25N, R28W	Barry	39
056*	207	NW1/4 & S1/2, NW1/4	S13, T25N, R28W	Barry	120
057*	208	NE1/4, NE1/4	S12, T25N, R28W	Barry	40

\* New Outfalls

**44 TOTAL SITES**

**TOTAL ACRES 2121**

### Digital Coordinates of Outfalls

*Google Earth is source of coordinates.*

<u>Outfall</u>	<u>Site</u>	<u>UTM Coordinates, Zone 18S</u>	
		<u>East</u>	<u>North</u>
001	15	415845	4082972
002	17	415776	4081604
003	18	416135	4082649
006	46	416691	4083228
007	49	417046	4083453
008	52	418274	4083953
013	84	415834	4082392
015	89	416656	4083833
016	96	416724	4081638
017	97	416488	4081606
018	98	416380	4082683
019	104	416274	4081729
020	107	415845	4081986
021	112	416246	4083123
023	117	416127	4081144
024	118	415911	4081615
025	119	416146	4082044
026	120	416904	4081864
027	121	416610	4082795
028	123	416982	408582
030	126	416223	4082406
031	129	417429	4082447
032	135	415566	4081613
033	138	416219	4082857
034	151	416572	4082080



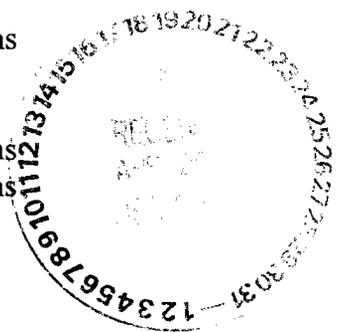
<u>Outfall</u>	<u>Site</u>	<u>UTM Coordinates, Zone 15S</u>	
		<u>East</u>	<u>North</u>
035	159	414021	4084143
036	163	416515	4081848
037	178	418423	4085045
040	182	419462	4084163
041	188	416629	4082357
042	191	414182	4083173
044	196	418852	4084317
045	Main Outfall	416832	4086020
046	197	413548	4082899
047	198	416670	4083597
048	199	410811	4091772
049	200	419226	4083885
050	201	419632	4084140
051	202	409116	4078376
052	203	409416	4077782
053	204	420564	4083418
054	205	410556	4085246
055*	206	414263	4084054
056*	207	415008	4082166
057*	208	416322	4083996

### 3.12 Type of Vegetation and Yields (from Soil Survey of Barry County, MO)

<u>Outfall</u>	<u>Site</u>	<u>Type of Vegetation</u>	<u>Average Yield/Acre</u>
001	15	Pasture	2.0-2.5 Tons
002	17	Row Crop	75 Bu
003	18	Row Crop	59-88 Bu
006	46	Pasture	2.0 Tons
007	49	Pasture	2.0 Tons
008	52	Grass Hay	2.0-2.5 Tons
013	84	Grass Hay	2.0-2.5 Tons
015	89	Grass Hay & Pasture	2.0 Tons
016	96	Row Crop	47 Bu
017	97	Row Crop	47 Bu
018	98	Pasture	2.5-3.9 Tons
019	104	Row Crop	47-88 Bu
020	107	Row Crop	47-88 Bu
021	112	Grass Hay	2.5-3.9 Tons
023	117	Row Crop	47-88 Bu
024	118	Row Crop	75 Bu
025	119	Row Crop	47-88 Bu
026	120	Row Crop	47 Bu



<u>Outfall</u>	<u>Site</u>	<u>Type of Vegetation</u>	<u>Average Yield/Acre</u>
027	121	Row Crop	47-88 Bu
028	123	Row Crop	47 Bu
030	126	Grass Hay & Pasture	2.0-2.5 Tons
031	129	Pasture	2.0 Tons
032	135	Row Crop	75 Bu
033	138	Row Crop	59-88 Bu
034	151	Row Crop	47 Bu
035	159	Pasture	1.7-3.1 Tons
036	163	Row Crop	47 Bu
037	178	Pasture	3.9 Tons
040	182	Pasture	2.0-3.9 Tons
041	188	Pasture	2.0 Tons
042	191	Grass Hay & Pasture	1.7-3.9 Tons
044	196	Grass Hay	2.5 Tons
046	197	Row Crop	47-88 Bu
047	198	Pasture	2.0 Tons
048	199	Pasture	2.0 Tons
049	200	Grass Hay & Pasture	2.0-2.5 Tons
050	201	Pasture	2.0 Tons
051	202	Pasture	2.0-2.5 Tons
052	203	Row Crop	75 Bu
053	204	Row Crop	59-88 Bu
054	205	Grass Hay & Pasture	2.0-2.5 Tons
055*	206	Grass Hay & Pasture	2.5-3.9 Tons
056*	207	Row Crop	27-40 Bu
057*	208	Grass Hay & Pasture	2.5 Tons

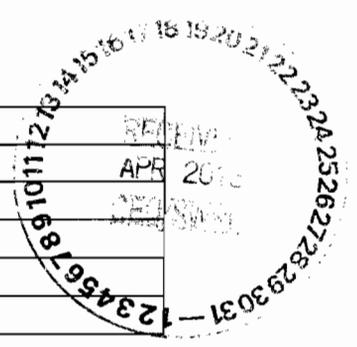


**3.60 Soils Information from the “Soil Survey of Barry County Missouri”, issued July 1994.**

Outfall 001  
Site 15

Soil Series Name:	15 C-Scholten gravelly silt loam
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	2.0-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0

Soil Series Name:	51 B-Tonti-Scholten complex
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	0.6-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0



Outfall 002  
Site 17

Soil Series Name:	21 B-Claiborne silt loam
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	>6.0 ft
In/hr for 0-12 inch soil depth	0.6-2.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	0.6-2.0

Outfall 003  
Site 18

Soil Series Name:	15 C-Scholten gravelly silt loam
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	2.0-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0

Soil Series Name:	92 A-Secesh silt loam
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	>6.0 ft
In/hr for 0-12 inch soil depth	0.6-2.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	0.6-2.0

Outfall 006  
Site 46

Soil Series Name:	51 B-Tonti-Scholten complex
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	0.6-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0

Outfall 007  
Site 49

Soil Series Name:	51 B-Tonti-Scholten complex
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	0.6-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0

Outfall 008  
Site 52

Soil Series Name:	15 C-Scholten gravelly silt loam
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	2.0-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0

Soil Series Name:	51 B-Tonti-Scholten complex
Depth to Bedrock (Ft)	>5 ft



Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	0.6-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0

Outfall 013  
Site 84

Soil Series Name:	15 C-Scholten gravelly silt loam
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	2.0-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0

Soil Series Name:	51 B-Tonti-Scholten complex
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	0.6-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0

Outfall 015  
Site 89

Soil Series Name:	51 B-Tonti-Scholten complex
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	0.6-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0

Outfall 016  
Site 96

Soil Series Name:	51 B-Tonti-Scholten complex
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	0.6-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0

Outfall 017  
Site 97

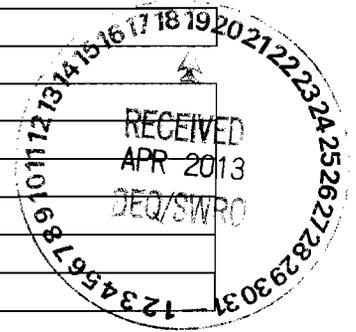
Soil Series Name:	51 B-Tonti-Scholten complex
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	0.6-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0

Outfall 018  
Site 98

Soil Series Name:	15 C-Scholten gravelly silt loam
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	2.0-6.0
In/hr for 12-24 inch soil depth	0.6-2.0

In/hr for 24-60 inch soil depth	<0.06-6.0
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Soil Series Name:	92 A-Secesh silt loam
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	>6.0 ft
In/hr for 0-12 inch soil depth	0.6-2.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	0.6-2.0



Outfall 019  
Site 104

Soil Series Name:	15 C-Scholten gravelly silt loam
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	2.0-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0

Soil Series Name:	21 B-Claiborne silt loam
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	>6.0 ft
In/hr for 0-12 inch soil depth	0.6-2.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	0.6-2.0

Soil Series Name:	51 B-Tonti-Scholten complex
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	0.6-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0

Soil Series Name:	92 A-Secesh silt loam
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	>6.0 ft
In/hr for 0-12 inch soil depth	0.6-2.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	0.6-2.0

Outfall 020  
Site 107

Soil Series Name:	15 C-Scholten gravelly silt loam
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	2.0-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0

Soil Series Name:	21 B-Claiborne silt loam
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Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	>6.0 ft
In/hr for 0-12 inch soil depth	0.6-2.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	0.6-2.0

Soil Series Name:	51 B-Tonti-Scholten complex
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	0.6-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0

Soil Series Name:	92 A-Secesh silt loam
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	>6.0 ft
In/hr for 0-12 inch soil depth	0.6-2.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	0.6-2.0

Outfall 021  
Site 112

Soil Series Name:	15 C-Scholten gravelly silt loam
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	2.0-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0

Soil Series Name:	92 A-Secesh silt loam
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	>6.0 ft
In/hr for 0-12 inch soil depth	0.6-2.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	0.6-2.0

Outfall 023  
Site 117

Soil Series Name:	15 C-Scholten gravelly silt loam
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	2.0-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0

Soil Series Name:	51 B-Tonti-Scholten complex
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	0.6-6.0

In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0
Soil Series Name:	92 A-Secesh silt loam
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	>6.0 ft
In/hr for 0-12 inch soil depth	0.6-2.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	0.6-2.0



Outfall 024  
Site 118

Soil Series Name:	21 B-Claiborne silt loam
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	>6.0 ft
In/hr for 0-12 inch soil depth	0.6-2.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	0.6-2.0

Outfall 025  
Site 119

Soil Series Name:	15 C-Scholten gravelly silt loam
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	2.0-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0

Soil Series Name:	21 B-Claiborne silt loam
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	>6.0 ft
In/hr for 0-12 inch soil depth	0.6-2.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	0.6-2.0

Soil Series Name:	51 B-Tonti-Scholten complex
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	0.6-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0

Soil Series Name:	92 A-Secesh silt loam
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	>6.0 ft
In/hr for 0-12 inch soil depth	0.6-2.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	0.6-2.0

Outfall 026  
Site 120

Soil Series Name:	51 B-Tonti-Scholten complex
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	0.6-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0

Outfall 027  
Site 121

Soil Series Name:	15 C-Scholten gravelly silt loam
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	2.0-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0

Soil Series Name:	51 B-Tonti-Scholten complex
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	0.6-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0

Soil Series Name:	92 A-Secesh silt loam
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	>6.0 ft
In/hr for 0-12 inch soil depth	0.6-2.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	0.6-2.0

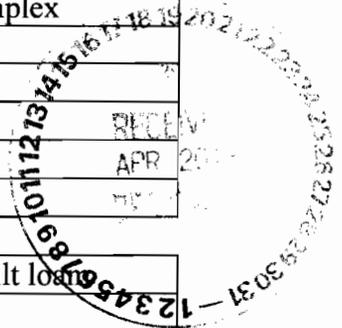
Outfall 028  
Site 123

Soil Series Name:	51 B-Tonti-Scholten complex
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	0.6-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0

Outfall 030  
Site 126

Soil Series Name:	15 C-Scholten gravelly silt loam
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	2.0-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0

Soil Series Name:	51 B-Tonti-Scholten complex
Depth to Bedrock (Ft)	>5 ft



Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	0.6-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0

Outfall 031  
Site 129

Soil Series Name:	51 B-Tonti-Scholten complex
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	0.6-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0

Outfall 032  
Site 135

Soil Series Name:	21 B-Claiborne silt loam
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	>6.0 ft
In/hr for 0-12 inch soil depth	0.6-2.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	0.6-2.0

Outfall 033  
Site 138

Soil Series Name:	15 C-Scholten gravelly silt loam
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	2.0-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0

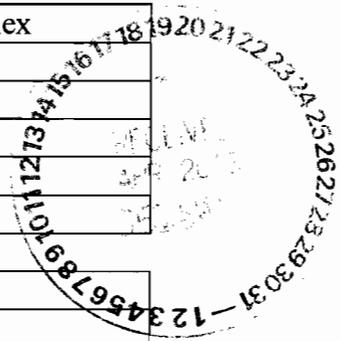
Soil Series Name:	92 A-Secesh silt loam
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	>6.0 ft
In/hr for 0-12 inch soil depth	0.6-2.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	0.6-2.0

Outfall 034  
Site 151

Soil Series Name:	51 B-Tonti-Scholten complex
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	0.6-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0

Outfall 035  
Site 159

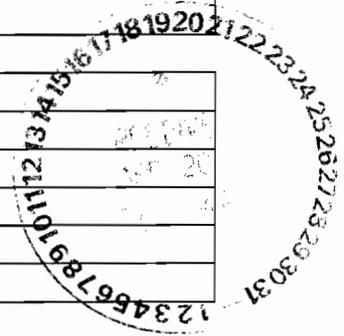
Soil Series Name:	30 C-Keeno very gravelly silt loam
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	2.0-6.0
In/hr for 12-24 inch soil depth	0.6-2.0



In/hr for 24-60 inch soil depth	0.06-6.0
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Soil Series Name:	61 B-Hoberg silt loam
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.0-3.0 ft
In/hr for 0-12 inch soil depth	0.6-2.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	0.06-2.0

Soil Series Name:	81 B-Tonti silt loam
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	0.6-2.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	0.06-0.2



Outfall 036  
Site 163

Soil Series Name:	51 B-Tonti-Scholten complex
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	0.6-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0

Outfall 037  
Site 178

Soil Series Name:	92 A-Secesh silt loam
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	>6.0 ft
In/hr for 0-12 inch soil depth	0.6-2.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	0.6-2.0

Outfall 040  
Site 182

Soil Series Name:	15 C-Scholten gravelly silt loam
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	2.0-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0

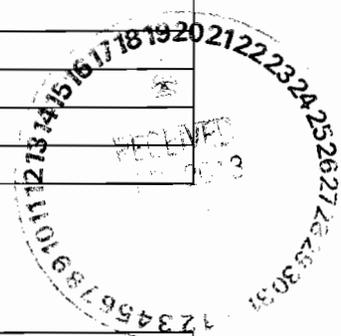
Soil Series Name:	51 B-Tonti-Scholten complex
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	0.6-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0

Soil Series Name:	92 A-Secesh silt loam
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Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	>6.0 ft
In/hr for 0-12 inch soil depth	0.6-2.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	0.6-2.0

Outfall 041  
Site 188

Soil Series Name:	51 B-Tonti-Scholten complex
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	0.6-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0



Outfall 042  
Site 191

Soil Series Name:	15 C-Scholten gravelly silt loam
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	2.0-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0

Soil Series Name:	30 C-Keeno very gravelly silt loam
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	2.0-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	0.06-6.0

Soil Series Name:	51 B-Tonti-Scholten complex
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	0.6-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0

Soil Series Name:	92 A-Secesh silt loam
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	>6.0 ft
In/hr for 0-12 inch soil depth	0.6-2.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	0.6-2.0

Outfall 044

Soil Series Name:	15 C-Scholten gravelly silt loam
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Site 196

Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	2.0-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0

Outfall 046  
Site 197

Soil Series Name:	15 C-Scholten gravelly silt loam
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	2.0-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0

Soil Series Name:	51 B-Tonti-Scholten complex
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	0.6-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0

Soil Series Name:	92 A-Secesh silt loam
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	>6.0 ft
In/hr for 0-12 inch soil depth	0.6-2.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	0.6-2.0

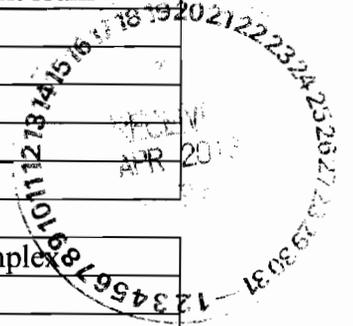
Outfall 047  
Site 198

Soil Series Name:	51 B-Tonti-Scholten complex
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	0.6-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0

Outfall 048  
Site 199

Soil Series Name:	44E Goss-Gasconade complex
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	>5 ft
In/hr for 0-12 inch soil depth	0.6-2.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	0.6-2.0

Soil Series Name:	53B Wilderness gravelly silt loam
Depth to Bedrock (Ft)	<5 ft
Depth to Water Table (Ft)	1.0-2.0 ft
In/hr for 0-12 inch soil depth	0.06-0.20



In/hr for 12-24 inch soil depth	0.06-0.20
In/hr for 24-60 inch soil depth	0.06-0.20

Outfall 049  
Site 200

Soil Series Name:	51 B-Tonti-Scholten complex
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	0.6-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0

Soil Series Name:	15 C-Scholten gravelly silt loam
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	2.0-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0

Outfall 050  
Site 201

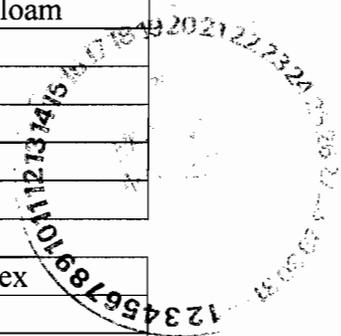
Soil Series Name:	51 B-Tonti-Scholten complex
Depth to Bedrock (Ft)	>5 ft
Depth to Water Table (Ft)	1.5-2.5 ft
In/hr for 0-12 inch soil depth	0.6-6.0
In/hr for 12-24 inch soil depth	0.6-2.0
In/hr for 24-60 inch soil depth	<0.06-6.0

Outfall 051  
Site 202

Soil Series Name:	15 C-Scholten gravelly silt loam
Depth to Bedrock (Ft)	>5 ft.
Depth to Water Table (Ft)	1.5-2.5 ft.
In/hr. for 0-12 inch soil depth	2.0-6.0
In/hr. for 12-24 inch soil depth	0.6-2.0
In/hr. for 24-60 inch soil depth	<0.06-6.0

Soil Series Name:	93 B-Waben-Cedargap
Depth to Bedrock (Ft)	>5 ft.
Depth to Water Table (Ft)	.6.0 ft.
In/hr. for 0-12 inch soil depth	0.6-6.0
In/hr. for 12-24 inch soil depth	0.6-6.0
In/hr. for 24-60 inch soil depth	0.6-6.0

Soil Series Name:	92 A-Secesh –Cedargap complex
Depth to Bedrock (Ft)	>5 ft.
Depth to Water Table (Ft)	>6.0 ft.
In/hr. for 0-12 inch soil depth	0.6-2.0
In/hr. for 12-24 inch soil depth	0.6-2.0
In/hr. for 24-60 inch soil depth	0.6-2.0



Outfall 052  
Site 203

Soil Series Name:	15 C-Scholten gravelly silt loam
Depth to Bedrock (Ft)	>5 ft.
Depth to Water Table (Ft)	1.5-2.5 ft.
In/hr. for 0-12 inch soil depth	2.0-6.0
In/hr. for 12-24 inch soil depth	0.6-2.0
In/hr. for 24-60 inch soil depth	<0.06-6.0

Soil Series Name:	92 A-Secesh –Cedargap complex
Depth to Bedrock (Ft)	>5 ft.
Depth to Water Table (Ft)	>6.0 ft.
In/hr. for 0-12 inch soil depth	0.6-2.0
In/hr. for 12-24 inch soil depth	0.6-2.0
In/hr. for 24-60 inch soil depth	0.6-2.0

Soil Series Name:	51 B-Tonti-Scholten complex
Depth to Bedrock (Ft)	>5 ft.
Depth to Water Table (Ft)	1.5-2.5 ft.
In/hr. for 0-12 inch soil depth	0.6-6.0
In/hr. for 12-24 inch soil depth	0.6-2.0
In/hr. for 24-60 inch soil depth	<0.06-6.0

Outfall 053  
Site 204

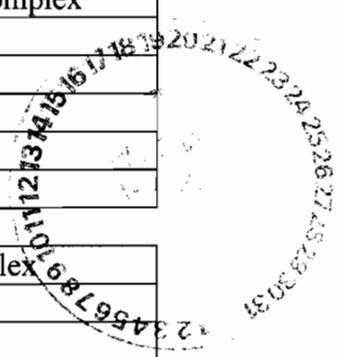
Soil Series Name:	51 B-Tonti-Scholten complex
Depth to Bedrock (Ft)	>5 ft.
Depth to Water Table (Ft)	1.5-2.5 ft.
In/hr. for 0-12 inch soil depth	0.6-6.0
In/hr. for 12-24 inch soil depth	0.6-2.0
In/hr. for 24-60 inch soil depth	<0.06-6.0

Soil Series Name:	15 C-Scholten gravelly silt loam
Depth to Bedrock (Ft)	>5 ft.
Depth to Water Table (Ft)	1.5-2.5 ft.
In/hr. for 0-12 inch soil depth	2.0-6.0
In/hr. for 12-24 inch soil depth	0.6-2.0
In/hr. for 24-60 inch soil depth	<0.06-6.0

Soil Series Name:	92 A-Secesh silt loam
Depth to Bedrock (Ft)	>5 ft.
Depth to Water Table (Ft)	>6.0 ft.
In/hr. for 0-12 inch soil depth	0.6-2.0
In/hr. for 12-24 inch soil depth	0.6-2.0
In/hr. for 24-60 inch soil depth	0.6-2.0

Outfall 054  
Site 205

Soil Series Name:	51 B-Tonti-Scholten complex
Depth to Bedrock (Ft)	>5 ft.

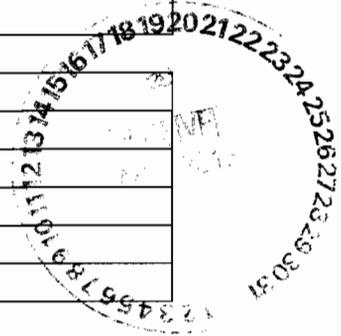


Depth to Water Table (Ft)	1.5-2.5 ft.
In/hr. for 0-12 inch soil depth	0.6-6.0
In/hr. for 12-24 inch soil depth	0.6-2.0
In/hr. for 24-60 inch soil depth	<0.06-6.0

Soil Series Name:	15 C-Scholten gravelly silt loam
Depth to Bedrock (Ft)	>5 ft.
Depth to Water Table (Ft)	1.5-2.5 ft.
In/hr. for 0-12 inch soil depth	2.0-6.0
In/hr. for 12-24 inch soil depth	0.6-2.0
In/hr. for 24-60 inch soil depth	<0.06-6.0

Outfall 055\*  
Site 206

Soil Series Name:	92 A-Secesh silt loam
Depth to Bedrock (Ft)	>5 ft.
Depth to Water Table (Ft)	>6.0 ft.
In/hr. for 0-12 inch soil depth	0.6-2.0
In/hr. for 12-24 inch soil depth	0.6-2.0
In/hr. for 24-60 inch soil depth	0.6-2.0



Soil Series Name:	30 C-Keeno very gravelly silt loam
Depth to Bedrock (Ft)	>5 ft.
Depth to Water Table (Ft)	1.5-2.5 ft.
In/hr. for 0-12 inch soil depth	2.0-6.0
In/hr. for 12-24 inch soil depth	0.6-2.0
In/hr. for 24-60 inch soil depth	0.06-6.0

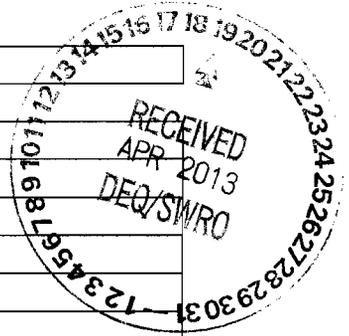
Soil Series Name:	15 C-Scholten gravelly silt loam
Depth to Bedrock (Ft)	>5 ft.
Depth to Water Table (Ft)	1.5-2.5 ft.
In/hr. for 0-12 inch soil depth	2.0-6.0
In/hr. for 12-24 inch soil depth	0.6-2.0
In/hr. for 24-60 inch soil depth	<0.06-6.0

Outfall 056\*  
Site 207

Soil Series Name:	92 A-Secesh silt loam
Depth to Bedrock (Ft)	>5 ft.
Depth to Water Table (Ft)	>6.0 ft.
In/hr. for 0-12 inch soil depth	0.6-2.0
In/hr. for 12-24 inch soil depth	0.6-2.0
In/hr. for 24-60 inch soil depth	0.6-2.0

Soil Series Name:	15 C-Scholten gravelly silt loam
Depth to Bedrock (Ft)	>5 ft.
Depth to Water Table (Ft)	1.5-2.5 ft.
In/hr. for 0-12 inch soil depth	2.0-6.0
In/hr. for 12-24 inch soil depth	0.6-2.0

In/hr. for 24-60 inch soil depth	<0.06-6.0
Soil Series Name:	21 B-Claiborne silt loam
Depth to Bedrock (Ft)	>5 ft.
Depth to Water Table (Ft)	>6.0 ft.
In/hr. for 0-12 inch soil depth	0.6-2.0
In/hr. for 12-24 inch soil depth	0.6-2.0
In/hr. for 24-60 inch soil depth	0.6-2.0



Outfall 057\*  
Site 208

Soil Series Name:	15 C-Scholten gravelly silt loam
Depth to Bedrock (Ft)	>5 ft.
Depth to Water Table (Ft)	1.5-2.5 ft.
In/hr. for 0-12 inch soil depth	2.0-6.0
In/hr. for 12-24 inch soil depth	0.6-2.0
In/hr. for 24-60 inch soil depth	<0.06-6.0

Soil Series Name:	51 B-Tonti-Scholten complex
Depth to Bedrock (Ft)	>5 ft.
Depth to Water Table (Ft)	1.5-2.5 ft.
In/hr. for 0-12 inch soil depth	0.6-6.0
In/hr. for 12-24 inch soil depth	0.6-2.0
In/hr. for 24-60 inch soil depth	<0.06-6.0

Soil Series Name:	92 A-Secesh silt loam
Depth to Bedrock (Ft)	>5 ft.
Depth to Water Table (Ft)	>6.0 ft.
In/hr. for 0-12 inch soil depth	0.6-2.0
In/hr. for 12-24 inch soil depth	0.6-2.0
In/hr. for 24-60 inch soil depth	0.6-2.0

**3.70 Nutrient Management Plan**

